THE APPLICATION OF REINFORCEMENT AND MODELLING TECHNIQUES IN GROUP COUNSELLING WITH REFERENCE TO DELINQUENT AND BEHAVIOURALLY-DISTURBED YOUTHS

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Russell A. McNeilly ABSTRACT

THE APPLICATION OF REINFORCEMENT AND MODELLING TECHNIQUES IN GROUP COUNSELLING WITH REFERENCE TO DELINQUENCY AND BEHAVIOURALLY-DISTURBED YOUTHS

The purpose of the study was to apply reinforcement group counselling with delinquents and youths displaying delinquency proneness. Specific principles of behaviour modification were combined with humanistic group counselling and tested against a no-contact control condition. A manual of the procedure and the exploratory measurement of treatment outcome were designed and utilised.

Reported research underscored the weaknesses of general group counselling (Ohlsen, 1970; Fullmer, 1970; Mahler, 1971; Dinkmeyer and Muro, 1971) and served as a base for strengthening the study. Studies of delinquents and delinquency proneness influenced the design and precision of the method and showed a need for treatment and preventive approaches (West, 1972; Warren, 1972; Slaikeu, 1973). But methods using social and modelling reinforcements yielded favourable results with delinquent populations and indicated promise pertinent to the present research (Rose, 1972; Nye, 1973; Hansen, 1972).

A sample of 210 randomly chosen subjects was involved in the experiments from 1973 to 1976. In each of seven trials there were two experimental groups (Modelling and Social reinforcement) and one control group, with ten subjects in a group. The treatment involved the use of modelling, systematic social reinforcement, behavioural group techniques, rational emotive counselling and elements of reality therapy. The modelling group had live models, while the social reinforcement group had no models, but each member of the latter was trained to express social reinforcers appropriately.

Group treatment was held twice weekly, in one and a half hour sessions, for a total of twenty-four hours over eight weeks, and the researcher shared leadership with members in all treatments.

There were three main hypotheses which sought to test differences among the two experimental and the control conditions in terms of interval scales, nominal scales and self-rating scales respectively.

The results indicated that modelling and social reinforcement did better than the control condition consistently. Using the adjusted values of the analysis of covariance and the sign test, significance was gained in favor of the experimental groups. Social reinforcement was the preferred means of treatment by a slight margin. Self ratings showed that the experimental groups were equally effective. Finally, the effects of the experiment were significantly maintained one month following the termination of treatment.

Of the four measures used, the self concept personality scale was the weakest and least consistent; the scale of self-acceptance and acceptance of others was useful as it assessed appropriate behaviours consistent with treatment; the external rating was promising but availability of judges in the natural setting was not always feasible; and personal rating constructed for the study showed greatest promise since it involved the subjects in a responsible way. The study lends strong support to the prototypal research that reinforcement group counselling is effective with adolescents who have behavioural problems, and should be applied as a preventive means of intervention in order to foster positive growth and development.

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CHAPTER 1

INTRODUCTION

The study attempts to use the principles of verbal insight counselling in groups and the method of modelling from behaviour modification in helping adolescents to view themselves confidently and to relate to others more positively. The experiment uses reinforcement group counselling with adolescents who are institutionalised as a result of delinquent or maladjusted behaviour as well as with adolescents who present behaviour problems in the school and may, if conditions deteriorate, be prone to delinquency.

Behaviour problems seem to be one of the greatest drawbacks to growth and development in terms of personality building and learning. Teachers in their job situation become frustrated at times when they are unable to cope with the behavioural problems of youth. Teachers in training schools for delinquent and maladjusted boys and girls and those connected with hospital schools find that behaviour problems, whether they stem from physical reasons, medical causes, social pressures, or value conflicts, interfere with the growth of the youths as well as with significant others. Teachers in the public school system face the challenge of behaviour problems as well and find that their training is inadequate to cope with them.

This study is motivated by a desire to design a method of intervention which can be used by teachers to help potential delinquents and known delinquents over difficult stages. The aim is to assist the individual in an examin-

ation of himself and his relationships with others so that he may appreciate what is going on, and by so doing cause him to seek ways and means of helping himself to surmount his own problems. To say that the method attempts to cure fully the delinquent of his problems is to misconstrue the method of intervention and to believe that there is an elixir to sweep away the pathology which is accepted by most of the theorists as having multifaceted causes.

The method of group counselling presupposes a certain familiarity with individual counselling. Both forms of counselling are based on the principle that an interpersonal relationship is taken into consideration in any process of education and learning. Actually our schools and our various social institutions for educational training tend to place a substantial amount of emphasis on the cognitive aspects of their work and not to realise that the affective elements are as important and must be learned. Learning will be hampered if feelings are negative, values are contradictory, frustrations are prominent and personal pressures are present. The cognitive aspects of development will in these situations be retarded. But while this may be accepted generally by teachers and various educators, affective elements of education are often neglected in practice. The argument is therefore in favor of counselling on an individual and group level, not only in institutions where the situation invariably reaches crisis proportions, but also in schools where the signs of crisis and the precursors of problems can be ascertained. A programme of prevention is most significant if any system of treatment is to have purpose.

Concern for youths has been expressed in annual reports of education, in correctional reports and in the media in Canada in recent years. Schools in larger centres experience difficulty with a proportion of youths in terms of drug abuse, value conflicts, disrespect for the other person and vandalism. Many developed and developing countries can count on a fair share of difficulties among youth, especially where living conditions have changed, economic pressures have increased, the family unit has deteriorated, and the prospect of a career seems poor. It is for these reasons that various correctional services are not content merely to incarcerate youthful inmates in institutions, but are seeking ways to prevent the situation from developing into proportions beyond the control of the individual. In the survey of literature some references will be made to delinquency proneness so as to emphasise the belief that youths should be given serious attention at an early stage when behaviour problems begin to appear and before they become grave.

In support of these concerns for youth and others, the Personnel and Guidance Journal (published by the American Personnel and Guidance Association, Oct. 1974) devoted a whole issue to a special feature on counsellors in corrections. Emphasis in this work was placed on various programmes for rehabilitation and early intervention. There was an indication of a search for effective methods to be used with young people. Another large scale attempt to deal with concerns of youth was noted in a three year project in helping delinquents under the direction of the University of Florida. This project started in 1972 and is still going

on as it has been successful in many directions. This project used both individual and group counselling and various methods of behaviour control. Out of this work with youths the directors believed that the children who have misbehaved lacked self control and may benefit from an approach that involves both direct control (supervision) and attention to personal needs (nonauthoritan personal counselling). The goal of this approach was the development of internal control as well as an ability to meet one's needs in ways that were socially acceptable (Lee, 1974). In the present study a dual approach consisting of direct learning through modelling and social reinforcement plus interpersonal peer relationships in group counselling seem to emerge from the project.

Closer examination of delinquent and problem youth shows that in most cases he has learned negative habits from other persons and he operates not in isolation but with or against others. Therefore, it is realistic to attempt to ameliorate the situation not in isolation, but in relation with others. The youth can appropriately be retrained through group counselling for it is by this method to a large extent that the social qualities are developed and enforced. In addition, the method of reinforcement group counselling can perform even more effectively since it underscores the process of learning in a directive way. This method has not been known for any length of time, since it has only recently been developed. It is a group process involving learning principles in a realistic manner. This study is an early attempt to apply this method among

"behaviour-problem youths." The hope in the future is that the method will be used as a form of prevention and intervention by teachers and social workers.

To this end an attempt at reinforcement group counselling was made on a very small scale in New Brunswick institutions in 1973, 1974, and 1975. It was applied mainly for teaching and demonstration purposes. This form of group counselling was more effective and goal-directed than unstructured group counselling, while at the same time it allowed freedom for expression. Although it was only in its infancy, it possessed merit in its feasibility for replication.

Aims of the Research

The main aims of the study may be stated briefly as the development of a humanistic method of group counselling involving learning principles, which can be replicated by any professional with basic understanding in the educational, psychological, or social science fields. In a number of studies of group counselling or related areas, the principles cannot be replicated or tried out since they are not explicitly outlined. So that while research on these methods may prove them successful as reported, it is not quite clear what was the cause of the success. The major aim of this present writer is to avoid this problem by reporting, as well as the results, the method of approach and precise strategies used, so that they can be used for training purposes, or for replication in further research.

Another main aim is to test a series of hypotheses which state that change takes place according to specific criteria - namely view of self and acceptance of others. It is logical to suppose that we can bring about a change in the direction of primary characteristics rather than across a broad spectrum of unspecified human qualities. Specifically we aim to use the proposed approach to help the individual to improve in a "realistic" and specified number of defined qualities. There is no emphasis on a "total cure" whatever this may mean. Indeed most of the research on group counselling has not been encouraging lately because the aims of such research have been over-ambitious, somewhat unrealistic, and, at the same time, the goals or objectives of the methods have not been defined.

Related to the criteria of view of self and acceptance of others is the fact that the present study is based on short-term group counselling. An assumption is made that since the aims are realistic and specific, that is, broken down into smaller meaningful units, the group can cope more effectively without becoming frustrated by the vagueness of the task and the unspecified length of time involved. If further work needs to be done, another attempt but still with short-term aims can be devised and a new session initiated.

Purposes of Study

Since the purposes have grown out of the aims of the research, it will suffice to present them briefly.

The purposes of the study are as follows:

1. Actually to take part as group leader in the experimental treatment of delinquent and behavior-problem

youths in two forms of group counselling by means of modelling reinforcement and social reinforcement.

2. To test the outcomes by the use of various attitudinal measures before and after treatment, and by a subjecive evaluation obtained from each individual in the experimental and control groups.

3. To devise a model of the development of processes of group treatment to act as a guide or manual for replication and training.

4. To test the differential effectiveness of four types of instruments used in the measurement of treatment outcome.

Limitations

In any study on human relations there are definite limits. A major one is the extent to which variables may be controlled. Since the aim of the research was to allow the process to take place in the natural setting, a feature in experimental studies could not be avoided. The principle that experimental and control groups be entirely separated did not apply since the nature of group counselling for self-acceptance and acceptance of others does not lend itself to causal contamination through mere casual meetings. The random sampling method permitted a spread of subjects over the whole institution and reduced bias to a minimum.

Another important limitation was that the researcher had to act as leader of the group counselling as well, thus having a detached-involved role. This has been done in a number

of previous studies especially where the research explores a novel technique as does the present study. It has the advantage of eliminating variations in leadership style.

The measurement of treatment outcomes too is definitely a problem in research on group counselling. As will be shown in a later chapter, much research reports weaknesses in this direction. In the present study four different types of instruments are used in order to gain more insight, and perhaps to provide a solution to this problem.

Brief Outline

The research is an attempt at an experiment to test the effectiveness of short-term group counselling using two different methods: modelling and social reinforcement, and to compare the outcome from groups using these with a control group having no treatment whatsoever. The design of the experiment allowed the examination of various sub-groupings. There is a comparison made between the modelling reinforcement groups and the social reinforcement groups. Each of these two groups is further compared with the control groups. There is also a comparison between delinquent youths and delinquency-prone youths. There are comparisons of the effect of treatment not only in terms of before and after but also of how far any treatment effect is maintained for at least one month after termination of group counselling.

The research is an attempt to look at the effectiveness of group counselling in an experimental manner but in the natural setting. For this reason a selection of samples was made within the institution or school so as to avoid

the complication of mixing various institutions with differing philosophies. It was done in this way also to make replication convenient within the institution or school so that continuing research and refinements could be made.

It should also be noted that before, during, and after the sessions, whenever requested, individual counselling was given. This was regarded as complementary to the experiment and its availability was made known to all the participants in the experimental groups before the research commenced.

Brief Description of Terms

The terms that are used throughout the study are defined as follows:

Group Counselling - Group counselling is held to be that form of prevention-oriented counselling which takes place in small groups among individuals who, though capable of functioning in society, are experiencing some concerns or problems in their lives. Such individuals may be capable in time of adjusting without intervention. But with intervention they are likely to recover in a shorter period of time with fewer emotional upsets or problems. It is an interpersonal process focusing on thought and behaviour and utilising group interaction to increase understanding of self and others, and the learning or unlearning of certain attitudes and behaviours.

Individual Counselling - A one-to-one professional relationship by which a client is helped in matters of self-understanding, decision making, and problem solving. It may

either be directive or non-directive. The interaction is highly confidential and unobserved by others. And the aim is to stimulate the client to develop behaviours to deal more effectively with himself and his environment.

Reinforcement Group Counselling - This is a relatively new addition to the process of group counselling. Definite forms of reinforcement are introduced deliberately in a more structured form of group counselling. Reinforcement Group Counselling may include social or verbal reinforcers, token reinforcers, or model reinforcers.

Modelling - The concept of modelling is generally termed imitative or observational learning. This involves the presentation of live or symbolic models to demonstrate desired behaviour which when viewed in the face of rewarding consequences, influences learning of a novel or modified skill. Modelling techniques also include role identification and role reversal. Where traditional talk and insight counselling may serve to maintain and sometimes increase deviant behaviour, social modelling should serve to strengthen alternative behaviour patterns.

Regular School - This is regarded as the day secondary school or the comprehensive high school.

Rational Emotive Therapy (R.E.T.) - This is a form of individual counselling based on verbal insight approaches. It is designed by Dr. Albert Ellis of New York. It is used in group counselling as well as individual counselling. The method is logical and didactic. Internalized self-defeating

statements are continuously challenged and new philosophies for living are introduced in a realistic manner. The method seeks to replace illogical thinking by logical, reasoned outlooks. This form of counselling is not suitable for the very vulnerable and sick person. It is really a problem solving approach which utilises learning principles.

Delinquent - The delinquent is an offender who has been sentenced for minor offences on one or more occasions and who has had to be confined in an approved school (school for the maladjusted, training school for boys, etc.) by the law enforcement agencies or by the school authorities in the case of the individual's lack of control and family pathology. Reference in the study is to juvenile delinquency in particular among adolescent boys in the age group 13 to 16 years, with an average age of 14.5 years. This category also includes those youths who are serving suspended sentences and who are under the surveillance of the probation officers.

Delinquency-proneness - This category includes youths who display characteristics of aggressiveness, uncooperativeness, frustration and depression, and are disruptive influences in school and at home. This group just falls short of confrontations with the legal enforcing agencies or the school authorities.

Behaviour Problems - They are problems of maladaptive and immature behaviour among youths. They include rebellious, aggressive, frustrated and conflicting acts committed against the self, the home, the school, and the society.

These problems interfere with learning, personal development and social development.

Reinforcement Group Counselling Manual - This is a guide to the approach followed in the group counselling sessions. It includes the activities that are followed, the step-wise set of principles, the major questions posed and the exercises followed. It is designed to be used for training purposes and in case of replication. It should be pointed out that it is not a guide to be followed slavishly. Rather, the group leader should conduct the session in accordance with his own initiative, change certain activities that may not be appropriate, and take into account the purpose of the session.

Plan for Future Chapters

In the next section of this study, several chapters will present a survey of literature. Global aspects are examined initially, including a study on delinquency and the application of group counselling techniques to youths with behaviour problems. Then reinforcement group counselling is investigated along with the two other subsidiary techniques involved in the method, namely: modelling and social reinforcement and rational emotive therapy. The previous research is then used to help in the generation of hypotheses.

The chapter on method of study seeks to clarify matters of design, variables and organisation for the experiment. Again, support for the variables used and techniques applied arose out of the survey of studies made.

In the final section results are presented from each of the two pilot studies and the five trials of the experiment. Since the experimental results were substantial and involved, a separate chapter on an analysis of the total combined result was prepared, and this was followed by a full summary of the whole thesis with pertinent conclusions. The manual outlining the method of reinforcement group counselling is included in an appendix (Appendix A).

CHAPTER 2

THEORETICAL FRAMEWORK AND SELECTED STUDIES ON DELINQUENCY AND DELINQUENCY-PRONENESS WITH SPECIAL REFERENCE TO TREATMENT

Introduction

With the background presented in the first chapter, we examine the delinquent as well as the youth susceptible and vulnerable to delinquency. This is done with the purpose of examining the treatment methods especially as they pertain to group counselling. But it appears that treatment methods and programmes in this area have proven to be lacking and inconsistent. This chapter will therefore attempt to select the representative highlights of work done in this area to show that a consistent effort and organised attack on the problem of treatment and rehabilitation are needed and by implication to point out that the realistic method proposed in the present study has merit, provided that the conditions of training of leaders and evaluation are observed.

In the first part of the chapter an examination will be made of the factors militating against the delinquent and youth who has fallen a victim of a behaviour problem or of disturbances which include social problems as well as learning difficulties. This is significant for the treatment perspectives since it helps to set limits on the process as well as expectations as to the outcome of treatment. Background on typology and variations in treatment methods will be presented. The idea of delinquency-proneness or of the individual who is beginning to face behavioural problems that

may lead to delinquency, is discussed. This is useful as it suggests treatment that is preventive. Therefore, a selected number of appropriate studies is reviewed. A theoretical structure on the trends in treatment is examined to show that which is operating in the institutions up to this time. Finally, a series of journal studies reported in the more important work on crime and delinquencey is examined in order to ascertain the status and degree of use of group methods as a treatment and preventive means. The chapter concludes with evidence to show that group methods ought to be improved and leads into the following chapters which show some of the possibilities of group counselling using reinforcement principles with our specific population.

Factors militating against the delinquency or behaviourally disturbed youth

Frankelstein (1970, pp. 37-38) makes a classification of the major types of disruptive behaviour. He divides the negative behaviour of youths into two general classes, asocial behaviour and anti-social behaviour, the former being of a lesser degree of severity than the latter. The three varieties of asocial behaviour are as follows:

1. Primary waywardness.
2. Passive drifting into asocial habits, especially in the mentally retarded.
3. Impulsive delinquency mainly in the brain-injured.

The anti-social behaviour follows:

4. Delinquency arising out of unconscious feelings.
5. Substitute-symbolic delinquency.

6. Primary behaviour disorder (PBD) of the oedipal type.
7. Primary aggressiveness.
8. Expansive aggressiveness.
9. Paranoid aggressiveness.
10. Psychopathic delinquency in adolescents.

In the case of adults, some of the same varieties are seen in more complex forms, as follows:

1. Waywardness including passive drifting, and reaction to later traumatization.
2. Organic cases comprising asocial and antisocial behaviour involving epileptics and alcoholics.
3. Guilt offenders and compulsive delinquents comprising, among others, kleptomaniacs, pyromaniacs, and the like.
4. Perverts displaying compulsive behaviour.
5. Aggressive criminals which include all the severe anti-social behaviours of youth with the addition of revenge and the fake pride of trying to prove independence.

An attempt at classification was made some years ago by the Gluecks (1950) for purposes of prediction and indirectly for prevention. Their general views were supported later by researchers like West (1972), Argyle (1961, 1964), Sullivan, Grant and Grant (1957) and Warren (1972). In the research reported in their book, the Gluecks (1950) attempted to relate Sheldon's somatotypes to delinquency, and matched 500 delinquents with 500 non-delinquents on age, general intelligence, ethnic-racial origin and residence in under-privileged neighbourhoods. The levels of inquiry comprised the socio-cultural status, the somatic structure, the intellectual background and the emotional-temperamental

characteristics. It was found that delinquents as a group were distinguishable from non-delinquents in five broad areas:

1. Physically: the delinquent was essential mesomorphic in constitution, solid, closely knit and muscular.
2. Temperamentally: the delinquent was restlessly energetic, impulsive, extroverted, aggressive, destructive, and often sadistic, and generally displayed erratic growth patterns.
3. Attitude: the delinquent was hostile, defiant, resentful, suspicious, socially assertive, adventurous, unconventional, and non-submissive to authority.
4. Psychologically: the delinquent preferred to be direct and concrete rather than be symbolic and intellectual, and was less methodical in approach to problems.
5. Socio-culturally: the delinquent has been nurtured in homes of little understanding, affection, stability or moral strength; his parents are unfit to be effective guides or protectors or desirable sources of emulation. This massive study by the Gluecks pointed out the complexity of the problem by confirming their hypothesis that the high probability of delinquency is dependent upon the interaction of conditions and factors from all these areas.

The Gluecks made another later attempt at setting up a typology (Gluecks, 1970). The idea of this was to isolate certain clusters of causes so as to facilitate the formation of clear clues to aid prevention, treatment, and rehabilitation. They (Glueck and Glueck, 1970, p. 13) quoted five general efforts to develop delinquency classifications after Grant (M.R. Grant,

1961), summarised as follows:

1. Prior probability approaches represented by Borstal Studies and the California Department of Corrections and Youth Authority expectancy studies, as well as the configuration analysis procedures practised by Glaser;
2. Psychiatric-oriented approaches after the work of Erikson, Redl, Argyle, the Illinois State Training School Treatment Committee, and the California Youth Authority.
3. Reference group typologies represented by Schrag and Sykes; and Social class typologies represented by W.B. Miller;
4. Behaviour classifications represented by Ohlin, Reckless and Lejuns;
5. Social perception and interaction classification of Gough and Peterson, Sarbin, Studt, and Sullivan-Grant-Grant.

The Gluecks concluded that since it is very difficult to propound a simple and adequate typology, only the eclectic approach offers promise. This would avoid an over-simplification in outlining the dimensions of delinquent types.

It was Argyle (1961) who broadly defined four characteristics of the delinquent which differentiated him from the non-delinquent. Each of these characteristics was felt to relate to specific features of the offender's background. The first feature was the lack of sympathy on the part of the delinquent, a relative callousness and aggressiveness and a lack of sensitivity to other peoples' feelings. This was ascertained in the profiles of low scores obtained by delinquents on instruments on moral values and moral choices. Delinquents had a tendency to lie and cheat on tests as

well as a tendency to extra-punitiveness. His third characteristic was impulsiveness or lack of ego control. This was revealed in impatience and carelessness on performance in psychomotor tests, low scores on perseverance and a desire to gain immediate satisfaction at the expense of long term goals as seen from the incomplete sentence projective test. The fourth characteristic was a tendency of the delinquent to identify with an anti-social climate, in showing resentment and rejection of authorities such as fathers, teachers, and the police and replacing this by submission to the rebellious element from among his own peers.

In a report of current research by M.Q. Warren (1972) an offender classification model was suggested. This model was aimed at giving focus for management practices and treatment strategies. The offender subtypes included the asocial, conformist, antisocial, manipulator, neurotic, subcultural-identifier, and situational offender. Warren suggests that only by some such form of classification is it possible to devise treatment programmes and interpret the findings of research in these studies.

In a study in approved schools in 1962, Klare and Haxby (1967) reported approximately 66% support for the idea of three broad types of maladjustment specifically related to environmental patterns. The types and environmental influences are shown as follows (Klare and Haxby, 1967, pp. 22-24):

Types of Maladjustment	Environmental Influences
1. The unsocialized, aggressive syndrome.	1. Pattern of parental rejection.

Types of Maladjustment	Environmental Influences
2. The socialized delinquency syndrome.	1. Pattern of parental rejection, negligence and exposure to delinquent behaviour.
3. The over-inhibited syndrome.	2. Pattern of family rejection.

It should be noted that the second category did not gain full confirmation for one reason or other. The behavioural items of the types of maladjustment are shown in the following illustration:

Behavioural Items

(Klare and Haxby, 1967, p. 25)

1. Unsocialized aggressive syndrome
   - (a) Assaultive tendencies
   - (b) Initiatory fighting
   - (c) Cruelty
   - (d) Defiance of authority
   - (e) Malicious mischief
   - (f) Inadequate guilt feelings
2. Socialized delinquency syndrome
   - (a) Bad companions
   - (b) Gang activities
   - (c) Co-operative stealing (stealing with others)
   - (d) Furtive stealing (stealing alone)
   - (e) Habitual school truancy
   - (f) Truancy from home
   - (g) Staying out late at night

3. Over-inhibited syndrome
   (a) Seclusiveness
   (b) Shyness
   (c) Apathy
   (d) Worrying
   (e) Sensitiveness
   (f) Submissiveness

Implicit in the need for a classification and typology is the nature of apparent causation. The causes of delinquency are not at all clear-cut but rather somewhat complex. It might be best to examine the classificatory details and adhere to an eclectic principle of causation. An examination of causes has implication not only for treatment of the offender but also for preventive methods among those prone to delinquency or the behaviourally disturbed. Therefore, since the treatment process in the present study is aimed not only at the delinquent but also at the youth who without assistance could possibly become a delinquent, it is significant to give a brief review of causation. The argument is that it is not only apt to treat the declared delinquent but to treat the vulnerable and weak youth who may well become so.

In their celebrated study, the Gluecks (1950) attempted to unravel the causes, types, and characteristics of delinquency. They compared unselected delinquents with a matched sample of non-delinquents. Their results were supported largely by Burt (1944), Stott (1964), West (1967), Mays (1970) and Commins (1971). The Gluecks found first of all, that the best single indicators were "warmth versus

rejection" in their parents. Rejection by the father was more important than rejection by the mother, a fact carefully proved by the study of delinquency and parental pathology made by Andry (1971). It was found that 60% of the delinquents in the Glueck's study were rejected by their fathers.

The second major finding was that the discipline imposed on the delinquent was either too harsh or too weak, an indictment of the extreme positions. The third important finding was that the delinquent was governed by too autocratic or a too democratic form of control. Too much or too little freedom at home can give rise to delinquent behaviour. The fourth major finding was the element of broken homes. The continual absence of parents or constant conflict in the home can have deleterious effects in the making of a delinquent. The fifth important result was the existence of disturbed parents, especially those who have a criminal record. The delinquent is likely to have parents who are themselves offenders, alcoholic, neurotic or mentally retarded.

Another view of the causes of delinquency may be what West (1972) terms "the 'bad' seed" idea. Examining the genetic approach of Lombroso, that of Sheldon focusing on body types and that of the Gluecks confirming the body type argument suggests that at best this theory could explain only some of the cuases. Subnormality and/or minor physical handicap is a factor only in the existence of known delinquents. The concept of brain damage and of the biochemical constitution being impaired cannot account fully for delinquency. Further work with the use of the electro-encephalograph might perhaps be expected to provide greater evidence

of neurological abnormalities in the brain mechanism of the delinquent. Moreover, whether children of criminals inherit criminal tendencies or not is a significant question. West (1972) does not accept this view since the transmission of the abnormality of behaviour, when it occurs, does not necessarily follow from blood kinship itself but more probably from the association with criminality through contact and adverse influences. The children of criminals certainly show a greater tendency to criminal behaviour than do the brothers and sisters of criminals, which suggests that the children have acquired rather than inherited the negative tendencies through the influence of learning by observation and modelling. Trasler (1962) supports this view.

In terms of his personality theory, Eysenck (1964) explains criminality using the concept of conditioning. His theory draws from the psychological, physiological and behaviouristic models. He shows that by means of conditioning the conscience is built up and each person is affected differently in relation to the amount, degree, and direction of his conditioning influences. This theory fits rather well with descriptions of criminals, and is supported by the fact of marked correlations between the scale of extraversion-intraversion and the strength of conditionability. It was found that the delinquent is more predominantly extravert than he is socially conforming, and coupled with this he displays a neurotic tendency or emotional instability. But in examining the individual for delinquent tendencies, one must be careful when interpreting the scale to look for a tendency to falsify in a self-defacing manner.

A critical attack on Eysenck's theory was made by Hindelang (1971). In examining extraversion, neuroticism and self-reported delinquent involvement, Hindelang found that the clear cut categorization of the delinquent into the extrovert-neurotic characteristic does not always hold. He tested a male high school sample which responded to the personality inventory and reported illegal behaviours. The results were that Eysenck's predictions on a direct linear relationship between extroversion and engagement in illegal behaviour were supported. But there was little support for a similar relationship between neuroticism and involvement in illegal behaviour. This latter relationship was curvilinear and weak. Recently, Foggit (1974) presented a PhD thesis at the Institute of Psychiatry, University of London, showing fairly similar results and noting that introverted-neurotics sometimes displayed criminal tendencies. The problem of causation, therefore, remains complex.

An approach to the causes of delinquency was presented in a short study by Commins (1971). Looking at the situation from current research done in centres at Aberdeen, Cambridge, Bristol, Croydon, Leicester and Cardiff, Commins attributed a greater part of the reason for delinquency to the establishment of housing estates, concentrations of dilapidated homes in dense urban ghettos. He felt that these estates offered nothing by way of privacy, diversion, interest or attraction and led to boredom and anonymity and disorganization of family life, in an already declining family structure. It was believed that the home background had a deleterious effect on the youths who became delinquent.

He noted three types of homes: those characterised by viciousness involving cruelty, brutality, maltreatment and defective discipline (all supported by MacLean (1966); the Newsome Report (1963), Shields (1962), Mays (1959), and Burt (1925) ; those marked by neglect with squalid living conditions, lax or non-existent discipline, poor inter-parental relationships, personal disorder and parental disregard; and those surrounded by stress involving unreasonableness and too severe censure. While there is no necessary connection between a poor home setting and subsequent delinquency, it was pointed out that the broken home is a contributory cause of delinquency. The other point to note is that delinquents from intact homes in a bad neighbourhood usually outnumber delinquents from broken homes. In all these cases the delinquent seeks to redress the misfortunes of childhood and cumulative feelings of injustice, assumed victimisation from maltreatment, neglect or usurpation are built up. He counter-attacks and seeks revenge in his impatience. Feelings of hate and unhappiness are built up until the strain and tension cause an internal explosion with external manifestation. The psycho-analysts charge early and faulty childhood upbringing while the behaviourists point to faulty conditioning. It was Stott (1964) who stated that there must be "evidently some variability of individual vulnerability to stress" differentiating delinquents from non-delinquents. He believes that there must be an "inherent instability" within delinquents.

Commins contributed a two-fold classification of causes of delinquency. In the first category he placed those with

no disturbed biographies, not maladjusted, with offences in isolated instances. These delinquents played pranks, were involved in an unfortunate event, had a temporary imbalance, and did identify with delinquent children. In the second category he placed those with disturbed biographies, who possessed some degree of maladjustment and had repetitive offences. These delinquents had mental disturbances, adverse home backgrounds, congenital character abnormalities and identified with delinquent parents. Finally, he goes on to say that "the vast majority (but not all) of these unhappy young people are more sinned against than sinning - and this is fact rather than sentiment."

Dr. Keith Wardrop, Director of the Forensic Psychiatric Clinic, Glasgow, divides delinquent adolescents into five groups based on causative factors and the awareness of treatment possibilities (Klare and Haxby, 1967). These categories are summarized as follows:

1. Organic basis - Results from some degree of brain damage based on an early history of birth trauma, early injury or illness such as encephalitis, poor muscular coordination, various developmental retardations or the incidence of epilepsy. This group is not confined to any socio-economic level, and tends to be more aggressive than acquisitive. It is characterised by an incapacity for affectional relationships or social identification with a poor capacity for abstract thinking.

2. The grossly deprived group - characterised by deprivation in the first few years of life which involves illegitimacy or rejection by the adult. There is a history of

frequent fostering and placements in childrens' homes. The behaviour is typically hostile in social relationships, low in impulse control, low in frustration tolerance and with a tendency to immediate impulse gratification. By the middle adolescent stage many in this group become potential addicts to alcohol or drugs. As a whole they have a very low self-concept and regard themselves as being totally worthless persons.

3. The Emotionally disturbed group - Characterised by symptomatology of an underlying severe emotional disturbance or a severe neurotic reaction. There is usually some history of deprivation, rejection, parental disharmony, or hostility in relationships in early years as well as disturbance in oedipal relationships. There is a delay in emotional and psychosexual maturation and confusion over sexual identification. As a result there is an aggressive or acquisitive sexual characteristic in the male and a tendency to promiscuity in the female without real emotional satisfaction. Such delinquents come from average homes and possess inconsistent attitudes to the community.

4. The Family-problem group - Results from a reaction to interpersonal tension in the family. It arises from a nagging over-reacting mother, an over-strict father towards a son, a father emotional involvement with the daughter, and extreme hostility and rejection between a girl and her mother. The self-image is not low but there is a strong attachment to the adolescent peer-group.

5. The Situational delinquency group - Found in youths with no psychiatric or emotional problems. These adolescents

commit offences on a purely acquisitive or aggressive level. There is an attitude of hostility to the community agencies and a degree of "cultural paranoia."

Delinquency Proneness

Although specific causes cannot be predicated in particular cases, for purposes of treatment, the identification and awareness of a cluster of causes are useful and appropriate. An examination of the importance of any given set of factors involved in the youth vulnerable to delinquency can have implications for preventive practices and treatment.

Cavan (1969) points out that delinquency is related to the schools in a few major ways which include serious misconduct within the school compound, the incidence of truancy, and the idleness of youths who drop out of school before completion and find difficulty coping with conventions and employment. These situations provide a challenge to the school which has to find an opportunity to seek to treat, prevent and control delinquency. It was felt that while the school cannot singlehandedly cure all the problems that grow out of the gross misdemeanours of youth, it can give a lead in this direction with the help of specialists, careful preventive measures, and the training of teachers to cope better with problems of early indiscipline.

In a work focusing on delinquency and the school Kvaraceus (1945) posed several problems. He wanted to check on the competence of the school, the classroom teacher and educational specialists to deal with early problems of discipline and delinquency and ways of dealing with them in

terms of prevention and control. He wanted to look at the relationships between schools and other agencies in the manner of a joint-attack on problems. He asked the rhetorical question: Do schools cause delinquency?, and believed they did fail to meet the individual needs of youths. He believes that since the problem of delinquency revolves around educational processes in one way or the other, then the school system can accomplish a great deal by enlisting community efforts in prevention and control. In order to curb delinquency and help to build positive outlooks there is need for a sensitivity to frustrating problems of children, a conscious effort on the part of educators to resolve the problem, a logical programme of positive approaches, the teaching of effective home and family life, and active and sincere parent-teacher cooperation.

To investigate the importance of the school in the matter of juvenile delinquency, one author did a study of school influence (Dell, 1963). He made an analysis of some of the educational and social factors present in the lives of 492 cases in a Belfast juvenile court over a twelve month period. This study showed the heaviest incidence of delinquency among children of secondary school age in non-selective schools. Differences in incidence rates were strongly associated with differences in socio-economic status. Other factors were the low level of socio-economic status, retarded attainments and the higher vulnerability of particular age groups. The location of the school in one of the old, central but socially declining areas was also a factor. It is important to note that the quality of the school's morale was effective in a small and measurable

degree in counteracting tendencies to delinquency. Actually, the measure of school quality was made by five senior officials who used a rating scale to rank in order of quality a sample of 13 boys from each school. These ratings by the five officials were tested using Kendall's statistic for the coefficient of Concordance (W = .80) and found to be highly significant. This study quotes Sir Alec Clegg (1962) who supports the view that the school has a part to play in discipline and delinquency.*

In their work on typology with implications for counselling and prevention the Gluecks (1970 pp. 87-91) referred to the school as an agency for delinquency prevention. They felt that the expression of the deep-rooted nature of temperamental and character traits which are first manifest by marked difficulties of adjustment at an early age among delinquents shows how essential it is for the school to discover the potential delinquents before the maladaptive behaviour. The school has to offer friendly and intelligent aid to parents so that a joint effort can be made to modify the improper behaviour, and the hostile attitudes that have developed. To this end the Gluecks suggested the training of teachers to include a substantial appreciation of social case work centred on the family. The present study would tend to suggest a psycho-educational approach, the development of better Guidance and Counselling services, and the development of courses in remediation which include learning theories and group counselling using reinforcement principles, all of which are more appropriately related to the teacher's role. In otherwords, the

*See also: Power, Michael. "Delinquent Schools". New Society, Oct. 19, 1967.

Gluecks are recommending an approach in the schools which involves not only a rigid academic approach but more significantly a humanistic and psychological bias. They did also suggest a flexible type of curriculum to cater for the needs of youths who find school unattractive, boring, and rather frustrating. They claimed that the school programme may need to undergo a radical change for adolescent youths who are deeply involved in maladaptive behaviours, a chance for example to engage in classroom activities in part of the school day and in approved and supervised paid work of vocational value outside the school in the other part of the day. Programmes such as this, coupled with activities which include group counselling for developmental purposes, may have an encouraging and motivating effect on potentially delinquent youth.

Studies on the identification of potentially delinquent youth are of significance to the educator or researcher interested in applying treatment and preventive methods. An effort in regard to delinquency-proneness has been made (Hall and Waldo, 1967; Baker and Spielberg, 1970; and Venezia, 1971), with suggestions for further research to assist prediction. Hall and Waldo (1967) attempted to find out the relationship between delinquency and an identification with schools and social institutions. To measure the adolescent's identification with educational institutions, Guttman scales were devised to measure six dimensions, namely, capacity to learn, value of education, legitimacy, teachers-general, teachers-personal, and teachers-academic. The findings indicate that delinquents identify with the school

to a lesser degree than non-delinquents and confirmed the findings of others (Kvaraceus (1966), Glueck and Glueck (1970)) that the potential delinquent finds school an extremely frustrating experience.

Another study (Baker and Spielberg, 1970) made a descriptive study of the personality of delinquency-prone adolescents. This study compared 38 delinquency-prone adolescent males who were school drop-outs with 45 adolescent males in a school on ten variables of the Jesness Personality Inventory. There were controls for age, I.Q., and geographic location. The research was carried out in a metropolitan area with a high delinquency rate. Anslysis of variance suggested a significant interaction between groups and personality variables. The significant results revealed that the delinquency-prone youth were more immature and repressive, and less affective and socially anxious than the non-delinquents attending school. This study provided a means of classifying youths with respect to proneness for delinquency by the use of a paper and pencil inventory. Another study was made recently on the prediction of delinquency (Venezia, 1971). The study makes the plea for studying children in need of help on a systematic basis. The aim is to provide a practical and efficient method of screening large groups of children. The descriptive study suggests focusing upon the child in the school environment. Work was done to show that data from such a focus can be systematically collected and utilised for the assessment and prediction of behaviour difficulties. While this study does not offer any clear support for its proposition, it points out the need for a significant attack on the area of

behaviour problems as a first step in curbing potential problems with delinquency.

Trends in Treatment

Treatment procedures using group principles and various approaches with group work are varied and generally unspecified in terms of the actual methods employed and the means of assessment. In a number of cases it appears that the leaders of group processes are not fully trained to cope with the therapeutic elements, a definite weakness apparent in some studies.

It is significant to note what Cortes and Gatti (1972) have to say about crime in respect to treatment. They realised that crime is with us so therefore we need to reduce and control it. They felt that "conventional and traditional psychotherapeutic treatments have failed. Therefore, a fresh approach and new methods of treatment are necessary." They were of the opinion that most delinquents are not neurotic, but weak and rather sick, irresponsible, not recognising morals, lacking in self-worth and suspicious of others. By implication these authors were lending support to a dynamic form of counselling, individually or in groups, utilizing learning principles and able to modify morals, attitudes, views of self and trusting of others.

In their separate works Cortes and Gatti (1972) and West (1972) have pointed to a number of methods of treatment. The more practicable of these methods of treatment are as follows: behaviour family therapy or family psychotherapy; reality therapy which concentrates on training the client individually or in group sessions in the

principles of responsibility, reason and right and wrong, the three Rs; rational emotive therapy using the ABC approach of Albert Ellis, the method adopted in the present research; experimenter-subject therapy in which youths are employed as experimental subjects to help the experimenter learn more about crime and find new methods of reducing it; behaviour and conditioning therapies adopting the principles of Wolpe, Eysenck and Rachman, Wolpe and Lazurus, Bandura and Yates; and probation therapy to combat minor juvenile delinquency through planned casework, counselling, and follow-up.

A number of attempts to apply group processes has been made with scattered success (West, 1972). In reality therapy the aim is to appeal to the realities of the social situation rather than to some form of abstraction. This has been tried out by Dr. William Glasser (1965) with delinquents in California. West reports that psychotherapy in the group setting used formerly in the treatment of neurotics has had a vivid impact upon some delinquents rather than individual interviews. He notes that the therapeutic community allows individuals to learn slowly and helps them to profit from their own mistakes. It allows the delinquent to learn through social contacts in a natural setting which, in effect, is a group situation. Such a method of approach does not adopt any single programme but follows principles which promote education in social interaction that is essential for psychological change. Some examples of early therapeutic schools are seen in the case of the school for depraved children at Neurhoff, Switzerland, founded in 1775

by Pestalozzi; the reformatory at Saltley, near Birmingham, organised by John Ellis in 1853, using self government and democratic rules; the school called the Junior Republic organised by William George in New York State at the turn of the century; and the establishment of colonies for juveniles in Russia after the Bolshevik revolution by the famous educator, Anton Makarenko; all of these making use of the democratic principle, informal discussion and small-group processes (West, 1972).

It was Aichhorn, an Austrian, who really put the therapeutic community approach in action. This was followed through by Frank Foster, and Dr. D. Miller in London. Aichhorn's school took into consideration that the delinquent was only fighting back against a hostile world that had rejected him. It utilised love and acceptance and followed a non-punitive direction. He used the method of small-group meetings with inmates who were not very dissimilar in character and personality qualities. After initial disappointments in rowdyism and aggressiveness, the boys gradually began to adjust to the new climate. The Northways Home for the treatment of delinquents was organised by Derek Miller during the 1950's. It was run on a voluntary basis to treat recidivists with love and understanding and so help them over a two year period to become socialized. Compared to a control group the Northways boys did consistently better in careers, family life and employment some years after release.

The concept of Cottage Six (Polsky, 1962), an American residential school for Jewish children in Hollymeade, is important since it demostrates a lack of success in the face

of trained professional staff, probably because of its free openness and conscious non-direction. This residential school comprised 20 tough boys who were under the care of a married couple called the houseparents. The boys attended class in the compounds and received individual counselling. The authorities hoped that group development would occur, which did come about but in a negative manner. A tradition was built up in opposition to the values of the institution. The older boys acted as negative models for the newcomers. The experiment was not successful since the professional workers who looked after the treatment did not collaborate with non-professional staff who looked after discipline.

Work by the Grants (1959) ushered in a new consideration for differential treatment needs of delinquents. This was demonstrated at Camp Elliott, San Diego, California, an American naval establishment. The personality of the offender is classified from level 1, indicating low maturity, to level 5 indicating perceptiveness, flexibility and sensitivity. It was found that the higher one moves up the scale of levels the better is the response to counselling or therapy. The implication seemed to be that in order to gain benefit from treatment, the delinquent must attain a certain minimum level. If this level is not reached, treatment can have negative effects. This principle was tested in more than one Californian project and was supported.

Warren (1972) reports a number of programmes in group counselling from some areas where active research is being carried out. The study examines various treatment procedures in probation and parole settings in community homes.

Selected ones (Warren, 1972) pertaining to the practice of group processes in the Canadian setting will be briefly noted to show that research has been limited. A demonstration project sponsored by the Canadian Federal Government has been investigating the use of voluntary assistance in provincial courts in the Ottawa area. The John Howard society of Alberta has been operating an ex-inmate halfway house for offenders. This is a demonstration project in which the Director of the Centre of Criminology, Irvin Waller, was involved in a follow up study on parolees and the interaction between parolee behaviour and supervisor behaviour. In Toronto, Canada, Dr. William H. Bruce, who represents the Big Brothers of America, has attempted a study comparing the standard Big Brother programme with volunteer Big Brothers aligned with fatherless boys. At the University of Montreal in Quebec, Noel Mailloux conducted a study on group counselling with young offenders at the Boscoville Institution. Weekly group counselling sessions were observed for two years, and Mailloux has developed extensive theoretical bases for a treatment programme.

Warren (1972) also reports definite use of group techniques in a number of other studies noting the strong effort and direction displayed by the State of California. Warren notes that Bernstein and Christiansen of Denmark, in their resocialization experiment with short-term offenders, found that the experimental group had a recidivism rate of 41% compared with 58% for the control group. They found that the moderate offender did better than the hard-core delinquent. The experimental group made significant changes in

self attitudes. Warren also found that Dr. John M. Speiner of Freidburg University in West Germany applied a group counselling programme using a client-centred approach with approximately 11 members per group. No definite results were given but a proposed scale to predict amenability-to-treatment was not fruitful.

Warren (1972) reported that Truax, Schuldt, and Wargo studied three client groups including institutionalised juvenile delinquents at the Arkansas Rehabilitation Centre, U.S.A., in 1968. The findings showed that self-ideal congruence was related to positive treatment outcome. In other words, positive personality change accompanied group counselling. Earlier, Truax, Wargo and Silber (1966) showed that group counselling conducted twice a week for 12 weeks and led by counsellors with high accurate empathy and non-possessive warmth, had a positive effect on the delinquent behaviour of girls. Warren states that Clannon and Jew reported in 1969 on a five year follow-up of the effects of counselling with prisoners in Vocaville, California. The experimental group in this study showed less recidivism in the first year than the comparison group. Since this finding did not persist through the second year, and with a further examination of the data, it was suggested that treatment had a differential effect for the men; positive for some and negative for others.

Warren (1972) again noted that a variant of the group counselling approach, called the guided group-interaction programme, has been spreading in some parts of the U.S.A. The residential programme comprising remedial education, a work

programme, and intensive group work with parents is conducted within homogeneous groups of youths using matched staff. While there were some successes, it was believed that the results did not justify the efforts. Therefore, from an extensive research on a guided group interaction programme in the Los Angeles area, the Silver Lake Experiment made definite and concrete suggestions for changes in the approach. The suggestions pointed to the fact that institutional ties should be improved, strain and stress should be reduced, and the delinquent peer identification should be decreased.

Warren (1972) further stated that the California Youth Authority's Community Treatment Project, Phase II, conducted in San Francisco, sought to compare three models of treatment. The models included a community-based programme utilising the differential treatment approach, a community-based programme following the guided group interaction approach and their traditional approach. The findings maintained that group composition is a significant factor in guided group-interaction success, and additional programme elements involving family treatment are strong motivators for certain offenders. It is apparent that a number of studies reported by Warren and others are attempting to tap the potential of group processes with offenders, and many of them are in the active experimental stage with mainly descriptive elements reported.

Commenting on Group counselling in a report on the proceedings of the British Congress on Crime in 1966 (Klare and Haxby, 1967), R.L. Morrison expressed a certain degree

of scepticism. He felt that group counselling was done on a piece-meal basis and generally by custodial staff lacking training, and these are points well taken. Morrison believed, however, that "there is little doubt as to the beneficial short-term effects of counselling in the form of a more relaxed institutional climate, a reduction of tension between inmate and staff groups and so on."*

Klare and Haxby (1967) sounded an important note on treatment which gives meaning to the present research as well. They felt that treatment for the adolescent is given at an age when identification is paramount, when the youth needs satisfactory models from people and the social environment. But they found institutions for this group are unrelated to society both in their organisation and the models they present. This lends support to the present research in the use of models with group counselling.

Selected Studies on Group Counselling with Delinquents

Most of the studies of group counselling with juvenile delinquents are open to objections that the group leaders were untrained, or pursued different methods. The descriptive explanations of the elements in the process of counselling are unclear and there is dependence usually on the treatment itself as a complete answer to a multi-faceted problem. It seems that a concerted effort is not made in the application of the principles of group counselling. A clear score of charges in these respects is made by Conrad

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* Summarised from: Conrad, J.P. (1965) Crime and Its Correction. London: Tavistock, pp. 236-48.

(1965). He believed that "in other places, for example, in England, reliance is placed on the occasional visit of a consultant supported by whatever enthusiasm and expertise the governor of the prison can muster. The trappings of group counselling are easy to simulate; the substance is hard to produce."(p. 241).

Conrad (1965) found that group counselling was being introduced on a state wide basis in California, while it was generally being used in Sweden. Many European countries were planning to experiment with this powerful method in correctional practice. While, however, the experiments in group counselling in California which started with Dr. Norman Fenton in 1954, succeeded (in subjective estimates of value and in reduction of rates of recidivism) far beyond expectation, their success could not be amply demonstrated in statistical terms. This seems to be a problem in group counselling research. It is felt that some new form of evaluation should be devised instead of depending upon paper-and-pencil tests, whose scores may never be adequate to ascertain real changes that might otherwise go unnoticed.

Conrad continues to point out that much more should be done to capitalise on groups. In California, England, and Canada, groups have been heterogeneous, made up of 10 to 15 members, meeting once a week over an assigned period of three months or longer. There is a conceptual problem in this timing and organisation. Conrad felt that some questions must be faced; content ranges from the non-didactic to the non-permissive, the relative competence and motivation of leaders varies, and a short period of group exposure

per week has to compete with other influences in the greater part of the week. He pointed out that a preliminary attempt at a model or framework was made. It revealed that with groups of middle based expectancy in long-term group counselling, a more favourable outcome was gained than with groups of low base expectancy. More research was needed in this field. However, he felt that the addition of special programmes of psychotherapy, education and group counselling is irrelevant unless the aim of the community or school itself is toward social restoration and socialization.

One of the early programmes of treatment was reported and evaluated by Powers and Witmer (1950). This is the Cambridge-Somerville Youth Study. It attempted to apply action research in the prevention of crime. The treatment was composed of paid visitors who befriended the boys, social service casework and the use of group meetings and discussion. The research did not have a clear purpose and the evaluation posed a problem. As a result, the findings were not satisfactory. While this attempt was weak, it did go to show some of the possibilities that were available for the future.

In a report on Borstal boys, Rose (1954) gave a description of the development of the Borstal system to show the struggle to devise a treatment. The Gladstone Committee of 1895 had visions of treatment when it recommended such a system. Government implemented a penal reformatory for offenders under 23 years of age. The idea had been gleaned from a study of the Elmira system in New York, which Sir E. Ruggles-Brise, the chairman of the Gladstone Committee,

visited in 1897. By 1910 there were two Borstals (Rochester and Kent) in England, and this expanded to five closed and four open institutions in 1930-9. Trades instruction, general education and group discussion were the highlights of the method. The success of this venture is hard to estimate, but, in general terms, the Borstals introduced a more human outlook in the field, and in recent times, all the associated schools dealing with juvenile delinquents have come a long way. Comments from this work are significant. Rose (p. 186) states that, "In other words, we must see the problems of reform as problems in how to fit the projected lines of social development of our offenders into types of individual-social environments we are capable of providing under the heading of treatment." He goes on to say that "Just as Dollard and Miller see psychoanalysis as a process of re-teaching, so the treatment of the delinquent and criminal is a process of re-teaching; we call it training but it is re-training."

Definite work on group counselling at a basic level started in the fifties but gained impetus in the sixties. One study from the former period (Scott, 1951) examined the treatment of delinquents in residential schools. Background information on internal and external factors in delinquency as a prerequisite for treatment was collected to demonstrate the heterogeneity of the group. Details of residential routines and organisation for treatment were described. The central elements were control and discipline. Mention of group counselling was made only in passing since this approach was used minimally at the time.

Bissell's study (1962) on group work in probation services showed at that time a greater interest in the techniques of group work. Taking a clue from the "gang-group" he showed how important considerations arising from it could prove healthy to the concept of the group process. The study describes group meetings in an institution noting how free talk of activities developed only after a period of initial tenseness. Meetings were held a few hours a week for a period of three months. Bissell pointed to the fact that evaluation of progress and achievement in individual or group counselling "is essentially evasive, complicated, and at times a tenuous process." Appraisal was always tentative. The qualitative results were that the personalities and problems of the youths assumed a different hue, and the youth's conception of the probation officer and the type of help offered were definitely modified.

In descriptive studies of the same year, Mack and Jones (1962) made purposeful reference to group work and group treatment. Mack was disappointed with group work in correctional institutions as a result of a form of self-evaluation of the system. A vigorous discussion of group work in Britain and elsewhere ensued at the conference at the University of Glasgow which Mack was addressing. It was believed that "group counselling is a chameleon term, embracing many different practices, and would seem to demand a more radical change of attitude on the part of prison officers than the bulk of them might find possible or desirable." Maxwell claimed that psychoanalysis and group treatment are suitable for character disordered cases. He upheld

the idea of a treatment community for patients to relate with peers to test out possible ways to alter behaviour and attitudes, and to afford the opportunity for role-playing, while the counsellor must be able to communicate and feel for the patient.

An influential conference on the treatment of prisoners was held in Brussels (De Berker, 1962). The theme was on methods of group counselling and group psychotherapy. The consideration of group counselling brought out a "medley of ideas." There was a strong striving by some to demonstrate what really happens in group counselling while others were concerned over definitions. Norman Fenton of California introduced the ground plan for group counselling - eight subjects, two staff, generally free limits, confidential, self-contained and educative. Delegates at this conference also addressed themselves to the effect of group counselling on staff. Small groups formed to discuss issues dealt with individual topics on the theme. On the theory of the choice of inmates for group counselling, the conference felt that a heterogeneous composition was best for spontaneity. Inmates were not compelled to participate.

Favourable observations were made on group counselling from empirical evidence (Laulicht, 1963; Lopez-Rey, 1965; Roger Hood, 1965). Laulicht writing from Ontario on selection policies in relation to rehabilitation programmes produced some empirical evidence for evaluating the effectiveness of treatment programmes in institutions. He looked at the change in the institution, Berkshire Farm, N.Y., from an educational one in 1954 to a diversified residential

approach including group counselling and individual counselling later. This programme was successful in preventing recidivism and giving boys a shorter stay in residence. But changes were small in degree of effectiveness, a factor which goes to show that with research on delinquents our expectations must be modest since with small samples it is difficult to execute a very rigorous design. Lopez-Rey makes reference to group therapy and counselling, pointing out that the administrative impact in correctional institutions makes these approaches far less successful. He maintains that "unquestionably group therapy is a good method, especially if applied in better environments than those prevailing in the majority of walled prisons." Its use should be expanded in open institutions and the family of the offender should be offered group counselling as well. Further support for this form of treatment appeared in a review (by Roger Hood, 1970) of Cohen's book, Cambridge Opinion: 38 Prisoners. In this book, Gordon Trasler argues on the basis of his learning theory of criminality for intensive group treatment along the lines pioneered by Maxwell Jones. He states that because working class criminals are socialised by group pressures, then individual paternalistic treatment will not countervail against the group methods into which such youths were locked.

Reports published in 1965 look at various attempts at a variety of approaches (U.N., Jones, Schmideberg, Holden and Gelder, 1965). Support for group counselling generally was provided by some observers, and the introduction into treatment programmes of behaviour therapy and reality

therapy in the group setting was being advocated by others. The U.N. Department of Economic and Social Affairs (1965) reviewed current practices and programmes in prevention and treatment in a number of countries. This review, among other things, pointed out the availability of legal aid to the young offenders in Canada (published in the Canadian Welfare Council Report, Ottawa, 1964). This was to have implications for counselling and guidance. The current practices reported a support for group counselling by Vogt (extracted from: Vogt, H., "Group Counselling in Probation", Federal Probation, vol. V, no. 3, Sept. 1961, pp. 49-54, U.S.A.). Vogt maintains that the group situation helps to reduce barriers not only between the offender and peers but also with the counsellor, more effectively sometimes than individual counselling. On treatment the U.N. Report (p. 126) notes that "among these psychological approaches, group counselling has shown particular usefulness, since institutional personnel can be trained as leaders and the process of interaction among peers appears particularly promising." H. Gwynne Jones (1965) gave a lecture outlining the methods of reciprocal inhibition, operant conditioning and aversive conditioning in use with delinquents. He felt aversive conditioning was most relevant, especially with symptoms offensive to society. Since that time there have been various codes of ethics as guidelines to the use of aversive methods in various states of the U.S.A. Jones saw possibilities in using learning principles to provide training strategies or schemes for delinquents. Gelder (1965) on the same theme of behaviour therapy critically

reviewed the value of certain behaviour techniques in treating delinquents and found that it will work only with selected patients. It has value under certain conditions such as detailed care and enthusiasm of the therapist in the case of alcoholism and sexual disorders. Some patients respond better to one form (B.T.) or the other (psychotherapy). He suggests differential treatments and effects as suggested by Grant (1961), who promoted an interactional approach between kind of treatment and kind of delinquent. Holden, on this same question, felt that the use of aversion therapy raised the questions of ethics. He believed that if punishment was the aim of treatment, then the psychologist should not be involved as this was out of his province. Instead, train the correction people in the principles of behaviour modification. A change, in the sixties, of developments in treatment came from Schmidelberg, who outlined cases which utilised the method of reality therapy. The therapist seeks to socialise the offender and develop in him a reorientation to life. Experimental work was lacking as the method was only recently developed at that time. Dr. Glasser (1965), developer of the method, has claimed success in his book on the work done in California Correction Services.

Surveys continue to be the means of finding out what was going on in group work. Barr (1966) surveyed group work in the Probation service in England. Among other administrative data, he found three main descriptions of groups, the discussion group, the activity group, and parents' group. No definite counselling approach was reported

at that time. Hirschi (1967) reviewed delinquency research in terms of its analytic methods to suggest ways of designing the attempts at statistical evaluation. He found genuine reports but spurious cases as well. Wardrop (1967) reported the use of group counselling in his new clinic at Glasgow. Activity group counselling was used with younger children while treatment groups using only the verbal medium were applied with older adolescents with satisfactory results. Family group counselling was valuable for certain delinquents.

Scattered studies about group work rather than in the application of this process were seen in 1968-69. Fisher (1969) reported on the use of a group counselling model in a half-way house in California in a programme for rehabilitating narcotics in their late twenties. There were regularly scheduled group meetings with compulsory attendance. These meetings were led by parole agents with a minimum to a scant professional background. Conditions were a willingness to accept therapy by members, fairly free expression and social interaction. Since the method was somewhat authoritarian, the programme was not successful. There was an inherent incompatibility between the demands of the social establishment and the treatment requirements.

Since the semantic differential is used in the present research, it is useful to mention that during 1968, this was one of the measures usually adopted in the study of aspects of group work. Masters and Tong (1968) showed that scores on this measure differentiated delinquents from non-delinquents and indicated that an adverse view of the home and social environment was held by the delinquent. The scales were used to gain reactions

on "home", "father", "mother", "me", and "body". Osgood's evaluative factor successfully differentiated the three groups of non-offenders, non-recidivists, and recidivists. This scale is well suited for the investigation of delinquent attitudes and the assessment of changes brought by treatment. Marcus (1969) in attempting to investigate attitudes towards group work devised a 50-item questionnaire to which 69 basic grade officers in Glendon H.M. Prison responded. Positive attitudes towards group work were found. The officers felt that group work does offer help to the inmates, it improves relationships between staff and inmates, as well as between custodial staff and inmates. Officers who favoured groups felt less distant toward inmates, less distant from counsellors, and held views congruent with treatment objectives of the institution. Miles (1969) reported success in the effects of a therapeutic community using interpersonal relations as the criterion. Monetary reward, on the lines of the token economy, was given for work with groups, and the formation of friendships was rewarded. The subjects were carefully observed and sociometric measures were used. The study revealed that the experimental group made more gains in developing personal relationships than the control group.

A definite attempt at finer experimentation appeared in the early 1970's. Marcus and Conway (1971) reported on a Canadian group approach study of dangerous sexual offenders and showed initial success. Berlin (1972) reported on treatment for the violent offender showing how behaviouristic approaches could be used with humanistic methods to re-socialise and re-train the offender. Berlin referred to a

study of Sluga (1970) on the use of psychodrama in a psychiatric fusion. Coupled with this technique, rewards were given 13 of 18 prisoners (psychopaths) over a period of 27 months. Six difficult offenders at a time were put in an open therapeutic community of well-behaved prisoners as models. The well-behaved prisoners were reinforced by extra family visits for work while the offenders were treated wth indifference. The latter group gradually learnt to become productive and was successfully re-socialized.

Reporting in Crime and Delinquency literature (1972), Atlas outlines a survey of the use of group counselling in correctional study settings undertaken a year earlier. Two representative programmes were surveyed, one on group counselling at Riker's Island, the other on guided group interaction at Highfields, New York. They found that the use of lay or professional staff as group leaders should be expanded, and that group counselling changes the role of the inmate and the character of the institution. Another paper in the literature of 1972 examined the California community treatment (CTP) programme for delinquent adolescents (Palmer, 1971). Since 1961 the CTP has worked with seriously delinquent youths (13-19 years). Instead of being institutionalized, youths are matched with a parole agent for an intensive programme, differential or individual long-term treatment. An "interpersonal maturity level" system is used for classification to determine treatment objectives and technique. Effectiveness as between experimental and control was evaluated in terms of suspension, recidivism, discharge and on psychological tests. The experimental pro-

gramme handled more cases (89%) than the control, and did as well. Further work had to be done to devise more effective techniques and settings.

Rosemary Deane (1972) described an attempt at open group work in prisons. She was concerned with the administrative procedures and structure involved in setting up a group rather than with the dynamics of behaviour within the group. This was done to give prospective leaders an appreciation of the background planning involved. Some of the main observations were that a woman leader was useful in an all-male prison, confidence was generated among co-workers, relationships developed with prison officers, and confidentiality increased through shared experience and mutual trust. There was a regular place and time for sessions. At first the leaders directed more but less and less as the group developed. A transference relationship became strong sometimes, and appropriate interventions were made. It was found from observation that social group work increased the effectiveness of inmates in terms of mutual trust and this was an added resource for the probation service. This offered a viable and realistic method of approach.

Standford and Bateap (1973) reviewed the application of reinforcement principles to the management of a prison. The token economy was adopted and inmates worked for rewards in the form of cokes, etc. A graded system of advancement was installed. The programme was successful to a degree. However, the gains were in line with the level of reinforcement, in that aversive consequences followed unwanted or undesirable behaviour, while reinforcing consequences followed desirable

behaviour.

Group counselling for offenders has shown promising results in St. Paul, Minnesota (Pew, Speer and Williams, 1973). This programme made use of ex-offenders and women in the treatment. The researchers believed that the absence of women in the treatment and rehabilitation of male offenders was a serious deficiency in traditional correction programmes. It is significant to note that an early introduction of the use of live models was made in the involvement of ex-offenders in the treatment.

Work on rehabilitation begun since 1969 was reported (Goldberg, 1973). A research and demonstration project was undertaken by the Massachusetts Rehabilitation Commission with 150 youths from two juvenile courts. The aim was to test that a comprehensive vocational rehabilitation programme would foster the development of work and social adjustment and, therefore, subsequently reduce delinquent behaviour in the community setting. The purposes were to maximize educational and vocational aspirations, increase vocational and social adjustments, strengthen ego development, and change personality patterns. The subjects were boys aged 14 to 16 years with no prior history of institutionalization. It was found that directive counselling was more effective in working towards a specific goal, and that non-directive counselling was more effective with the verbal, neurotic youth. The Commission expected to follow the boys to a career. After the first year some boys had gained full-time employment, one-third failed to complete, and the majority of boys were placed in active rehabilitation. Group home placements were reported as a possible corrective measure for delinquents in Toronto (Wilgosh, 1973).

Information from court files, a parent questionnaire, and an interview were used in the process of selection of candidates. A mixed sample with age ranging from 12 to 16 years with one to three offences, was chosen. It was revealed that if the agency had the support of parents and the parental attitude was positive, placement was likely to last more than six months.

Wilfert (1971) suggested group work within institutions and aired criticisms of the authoritarian attitudes that militated against the process in a report on Crime and Delinquency literature (1973). Group work involved a two-way form of communication and the exchange was on a plane of equality rather than by imposition. But traditional centres worked on an authoritarian model with influence flowing downwards. However, an institution may use group work to replace vertical structures, to dismantle the authoritarian and to make decisions jointly as well as to share responsibilities. Rules will arise from the community and problems or interpersonal difficulties may be solved in cooperation. In order to work such a system, the staff member must be well-trained in managing people, in working harmoniously with others, and be sufficiently sure to avoid conflicts of loyalty. An organised plan must be devised to make it evident where horizontal structures were to be placed and where the authoritarian decisions were to stand.

A report on the Minnesota Corrections Department Research outlined the utilization of peer culture during 1969 (Crime and Delinquency literature, June 1973). A follow-up study was conducted in 1971. A total of 242 boys

participated in the positive peer culture (guided group interaction) programme. This positive peer culture attempted to reverse the effects of the delinquent subculture by substituting a positive set of values and goals through peer pressure and staff guidance. The method, a treatment modality, consisted of meetings five nights a week for 90 minutes each. The staff group leader re-directed, guided, and focused on problem areas contributing to members' difficulties and then allowed the group to "work on the problem". Although there were no control groups for comparison, the findings of the study indicated a differential amenability to the approach. Older boys and those with less intensive histories succeeded better than minority and more disadvantaged boys, and certain strengths and characteristics were necessary for gainful participation. These findings were consistent with the observations of the James Marshall Treatment Programme in California, which operated on a 90 day community model using positive peer culture approaches. These approaches were closely related to the principle of modelling used in the present study.

The concept of moral values and attitudes appeared to be a central issue in 1973 (Cooper, 1973: Scarf, Hickey and Morcarty, 1973). Cooper, in a working paper, suggested a need for radical re-thinking on rehabilitation. This was regarded as a re-education of all the offender's attitudes. It was not a lesson that could be taught, but one to be learnt by the individual. Scarf et al (1973) in examining moral conflict in correctional settings with a view to change of views, used Kohlberg's (1967) theory of moral development.

A group counselling community for inmates was designed to stimulate moral reasoning. Group meetings used guided moral discussions as a focus. The activities included role-playing, role-taking and task-oriented group work. The results revealed that real life task-oriented discussions were more effective in inducing change than formal, leader-chosen concocted dilemmas. It was also found that an experienced leader could induce small statistically significant change among delinquents. The study demonstrated that delinquents were not fixated in moral ideologies.

Various group growth exercises were being introduced at this time in work on rehabilitation. A study on prison rehabilitation (New Orleans) demonstrates the search for new group approaches (McCoy, 1973). Inmates were encouraged to aid each other with problems by concentrating on inner changes and the power of positive thinking. They met in four classes for six nights a week. Concept therapy and reality group therapy were employed. An inmate put on the "hot seat" was told "Tell it like it is". This process was followed up with job placement. It has shown moderate successes.

The kind of study reported above has been attempted with college freshmen. It is selected since some of the ideas will be used in the present study. The study attempts to facilitate growth in interpersonal relationships (Felker, 1973). Group sessions were based on questions of critical importance: "Who am I, where am I going and how am I getting there?" In the introduction an explanation of the group format was given, procedures were outlined, an agreement to

attend was made, a comprehensive autobiography was requested, and the principle of sharing was underscored. Another session centred on goals and a clarification of individual expectation. The group developed further questions: "How do I see myself, and how do others see me." The semantic differential was employed to facilitate experience. Clients shared their initial impressions with each other. The session served to aid clients to recognize the impact they have on their peers and to help them to develop clearer self-concepts. Discussion on the "most" and "least" of their illustrated strengths and weaknesses was undertaken causing each member to look more deeply within himself and further clarify his self-concepts. For purposes of testing the objective "me", four inventories were used. These comprise the Strong Vocational Interest Blank, the Allport Study of Values, Edwards Personal Preference Schedule, and a self-esteem inventory. The group examined achievement, creativity, informal communication among friends (factors that facilitated or hampered communication among friends), formal communication (skills in formal situations), morality (value conflicts in drugs, sex, religion), and inspiration. An overall observation made was the development of a feeling of trust among group members, thus establishing an effective base for group functioning.

Most of the more pertinent studies reported, and many not reported, do present certain difficulties. In many cases the claims of a total cure from treatment seem to be in conflict with themselves, since the subject in the experiment is a complex individual. As the studies explain only in

very general terms the ingredients and processes of the actual elements of treatment, replication may not be accurate and trials of an experiment can never be consistent with a prior attempt. Another important problem is the shortage of trained personnel carrying out the process of group counselling. This is a severe drawback in the field and one that has deleterious consequences. A recent study by Slaikeu (1973) revealed agreement with the writer's contentions and goes even further.

The study by Slaikeu evaluated twenty-three studies on group treatment of juvenile and adult offenders in institutions covering the period from 1945-70. He examined the studies critically under headings that include definition of treatment, goals and theoretical presuppositions, experimental design, therapist and subject variables, specifics of group treatment, and the content of and complementary treatment. Under group treatment the author dealt with group psychotherapy, group therapy and group counselling.

It was found that the results of group treatment were discouraging from a scientific standpoint. On definition most of the 23 studies did not say precisely what type of technique they were using and did not give a clear definition of treatment. One third of the studies did not list goals of treatment or the theoretical assumptions behind them. The balance of studies did not show any consistency in the expressed goals of treatment. In the area of experimental design the studies fell short. One-third of the studies did not make use of a control group. Since there was no precise definition of the dependent and independent variables

in a number of studies, a weakness in interpretation became apparent. There was also a problem as to what constitutes success in treatment and the criticisms of this were highly variable. Even the dependent variables covered a vast area from a range of psychometric tests to behavioural ratings. There was a lack of adequate rationale for using one test as compared to another. Fewer than one-fifth of the studies reported any follow-up work, a serious weakness if one considers the significance of long-range measures of success in research in counselling and therapy. Only one-third of the studies reviewed explained the statistical processes involved so that they could be observed. In the area of therapist variables, no significant difference was found between experienced versus inexperienced counsellors on the basis of effectiveness. The comparison of professionals versus non-professionals would be extremely useful. Two thirds of the studies provide adequate information on the subject variables that include age, sex, race, how selected, crime and length of sentence. Information on the heterogeneity of the groups with regard to crime and term of sentence was not given, nor was it generally stated whether participation in membership was voluntary or not. For their various experiments in group treatment, discrete variables such as the number of sessions, their length and frequence were given. But the ground rules, specific techniques, role of leader and phases of group process were not. The evaluative studies did not mention the comparative effect on content of treatment of subjects in and out of an institution. The fundamental questions of a model congruent with the realities of an institutional setting and the psychological considerations affecting group treatment in

an institution as well as the treatment-custody dissonance, were discussed either sensitively or in detail.

The author of this group evaluation study, therefore, concluded that although the studies reported a variety of successful results, they nevertheless fall short of the minimum criteria necessary for scientific research, a factor which limited replication. Therefore, it was not possible to conclude that group treatment was effective. It was obvious then that there was need for sound investigation of the effectiveness of group counselling in correctional institutions. One suggestion made was to examine the compatibility of the institutional and post-institutional adjustment as criteria of success in group counselling.

Recent studies that have a direct bearing on the application of group techniques, like those utilised in the present research, to clinical and personality disorders showed real prospects for application with delinquent youths. The studies employ non-verbal exercises and social skills training (Bowers, et al, Jan 1974; Argyle, et al, March 1974).

Bowers, Banquer and Bloomfield (1974) utilised non-verbal exercises in group counselling with outpatient schizophrenics. The aim was to provide a supportive, open, encouraging and honest atmosphere to make feelings more concrete. The authors wanted to develop interpersonal competence, self-acceptance, and self-esteem, as well as to develop social skills and models for learning which could be continued after the conclusion of treatment. The non-verbal exercises were carefully selected to include the performance of a specific action through dramatization with the use of the five senses, and then to explore and express

feelings verbally. Some of the actual activities included pushing, touching, holding in a circle, breaking out of a circle, hitting the chain and outer group. Silence and eye gaze were employed, and non-verbal signals were expressed and interpreted. These methods made treatment enlightening as well as entertaining, provided a more humane person-to-person relationship and brought about group cohesion with meaning. It was stressed that this was a tool not a treatment modality, that it did not replace verbal insight counselling, but enabled it to develop with ease and comfort.

Michael Argyle, Peter Trower and Bridget Bryant (1974) have been attempting to use social skills training in the treatment of personality disorders and neuroses. The fact that few studies of the treatment of social inadequacy have been undertaken was largely due to the lack of knowledge of the psychology of interpersonal behaviour. These authors have been providing the conceptual tools for the development of social training techniques. The basic method of training consisted of role playing exercises, including the use of the video tape, knowledge of details of social interaction as the basis for feedback about gaze and gesture, the use of supplementary exercises for practice in non-verbal communication, the explanation of principles of social behaviour and the use of demonstration by models. Techniques using these ideas with seven individual patients and a small group were described. In the training sessions with patients, the use of role playing (being one self in various situations, and role reversal), modelling and instruction with immediate feedback in the form of video tape

recordings and comments by trainers was undertaken. Progress with the individual patients was assessed through psychiatrists' opinions, self-ratings of difficulty and patients' opinions. With the exception of one patient, clinicians thought that all the others had improved markedly. In the group situation, six training sessions of one and a half hours each with six patients were held. Films, feedback, role playing, problem solving and a number of innovations were applied. Assessment was made by four psychiatrists by means of a rating scale before and after treatment. There were no significant effects as a whole, but the analysis of variance computed for each patient in terms of time showed significant change in two subjects, suggesting differential response to treatment. The number was small, and ratings among judges were highly variable on the "unchanged" patients and low on the "changed" patients. Problems such as the possibility of adverse effects were carefully examined.

Social skills training, therefore, was advantageous in that the group acted as an ideal social situation for practice of the techniques, and it was real instead of being simulated; more economical use of the counsellor was made; and subjects tended to feel more at ease in a group of people with the same problems and, possibly, similar interests. The disadvantages were that clients who showed disturbed behaviour were inadequate models to other members, and there was less flexibility on the part of the counsellor in dealing with the individual's specific problems.

From the foregone description of studies of group work in institutions, it seems that we can draw a number of

conclusions. Specificity of aims seems to be important; so does the idea of treatment process, assessment and replication. While some of these approaches pose difficulty in any such study, the attempt in the present study will be made to deal with these problems in a realistic and logical manner so that replication may be possible and training in the techniques may be facilitated. In the next chapter we shall examine the principles of group counselling globally, noting some of the major characteristics that interfere with many studies undertaken with delinquents. That section would serve to lead into the particular area of reinforcement group counselling, which is an outgrowth of the field of general group counselling.

CHAPTER 3

THEORETICAL FRAMEWORK ON GROUP COUNSELLING

Background

Group counselling is concerned with social interaction to bring about changes in skills, attitudes, knowledge, and values. For some time it was believed that this process was confined merely to social and informal groups. But it was realised that social interaction is a learning and clinical tool as well. Group counselling is not a casual exchange of talk. It is an organized therapeutic task when used with structure, process and content carefully planned (P.B. de Mare, 1972).

The basic principles of Group Counselling have been derived from psychoanalytic approaches as well as the verbal insight approaches of individual counselling. For this reason some of the structural ideas which would seem applicable to other forms of group counselling, are dealt with.

The principles of group counselling are utilised in the application of reinforcement group counselling which is the central issue of the study. Therefore, an examination of the methods and approaches of group counselling is a prerequisite for a consideration of this central issue.

Group counselling evolved after the second world war in many directions. Generally in the first half of this century the most common approach was psycho-analytic group therapy. The neo-Freudian approaches and early developments of humanistic and existential approaches to

psychology in the American Continent led to a new approach in group counselling. Group psychotherapy expanded to include self development groups, encounter groups, the marathon, gestalt group therapy and sensitivity training (McLennan and Levy, 1971). Needless to say, a number of group centres has developed with leaders who are untrained and suspect. But this must not detract from the effectiveness that some of these approaches do have when conducted by trained personnel. One must differentiate between commercialization in group processes and education through group counselling.

Another form of group that developed after the second war was the T-Group. The National Training Laboratories at Bethel, Maine, U.S.A., answered the need of business by the organisation of group training to help personnel in industry. It was there that Lewin's pioneering work on the analysis of face-to-face activity among members of groups took place. This type of approach flourished since it was built on sound theory from the social sciences and utilised the services of trained leaders. Ideas from the National Training Laboratories and publications have served to strengthen group counselling performed for educational purposes (NTL Publication, 1957).

In recent times the influence of learning theory has had an effect on group counselling. Behaviour therapy in groups has been a guide to group counsellors in showing how members of a group can help the leader or counsellor in the conditioning or deconditioning process of other participants. What makes this influence most effective is its appropriateness in the educational and social services

setting among generally well-balanced people who nonetheless have troubling concerns and mild problems.

In his book written for British schools, Williams (1973, p. 67) noted that there were three broad influences on the development of group work. These were as follows:

1. The Sociometric, in which is included psychodrama and sociodrama stemming from the work of Moreno.

2. The studies in group dynamics by various workers in the U.S.A. and developed particularly by Lewin.

3. The psychoanalytically-oriented group work developed by Bion and associates at the Tavistock Clinic, Institute of Human Relations, and by other psychoanalysts, notably Foulkes and Anthony.

In their book written particularly for social workers, Thompson and Kahn (1970, pp. 76-80) noted that Group Counselling is less intensive and less comprehensive but, on the other hand, more flexible and has wider application in some cases than Group Psychotherapy with its rigorous demands. Members of a group counselling body attend for a limited purpose, and can be strangers to each other or friends who meet as such after sessions. Group Counsellors, unlike group psychotherapists, can belong to a variety of professions with a professional competence in one of the areas of medicine, nursing, social work, psychology, education or business. Though it does not deal with as deep a level of personality as other forms, it is not less valuable. Group counselling seeks a particular aim from the beginning of the session and works toward satisfying this goal.

It may be pointed out that the most constructive changes

to result from group counselling experience may be those that focus on the individual's competence to deal effectively with social situations. Then follow changes to evaluate the purposes and objectives of the group, as well as the pressures on his own relationships towards those objectives. Further changes in the individual subtend the development of skills thus moving the group toward its goal and making it a viable medium for his own personal purpose. It is these functions which are significant to the teacher and clinician interested in behaviour and personal problems.

The theory of group dynamics has provided basic principles aimed at increasing the effectiveness of the group as a medium of change (Cartwright, 1951).

1. If a group is to be used effectively as a medium of change, those people who are to be changed and those who are to exert influence for change must have a strong sense of belonging to the same group.

2. The more attractive the group to its members, the greater is the influence that the group can exert on its members.

3. In attempts to change attitudes, values, or behaviour, the more relevant these are as the basis of attraction to the group, the greater will be the influence that the group can exert.

4. The greater the prestige of the group member in the eyes of the other members, the greater the influence he can exert.

5. Efforts to change individuals or subjects of a group which if successful would have the result of making

them deviate from the norms of the group will encounter strong resistance.

6. Strong pressures for changes in the group can be established by creating a shared perception by members of the need for change, thus making the source of pressure for change lie within the group. One may create this condition by having the group generate its own data pertinent to change.

7. Information relating to the need for change, plans for change, and consequences of change must be shared by all the relevant people in the group. The lines of communication must genuinely be open.

8. Change in one part of the group produces strain in other related parts which can be reduced only by eliminating the change or by bringing about readjustment in the related parts.

The principles outlined by Cartwright were all applicable to the experimental groups in this research. Group members were encouraged to evaluate the task, the process, personality aspects and consequences of their behavior. The main purpose of the leader was to keep the mood and direction of the group members responsive to its needs and goals in these three aspects.

Gazda (1971) supports the principles outlined by Cartwright in his book. He notes that in group counselling with adolescents, the model or paradigm for counselling in the group setting must include the setting itself, the needs, levels of expectation, and ability to become involved in the helping process, of each member; and the personality of the group counsellor with qualities for helping. Each

counselling session goes through phases as follows: the exploratory stage, the transition stage, the action stage and the termination stage.

In research into client selection which determines the success of the process, Ohlsen (1970) summarises five criteria:

1. Volunteers should have a high motivation for membership.

2. Social maturity is a crucial factor that is not necessarily related to chronological age.

3. There should be a matching of intellectual ability to avoid too marked differences.

4. Groups should be of mixed sex particularly for adolescents who want and need reactions from the opposite sex.

5. The group should share common problems.

In a paper on major concerns in Group Counselling Mahler (1971) states that the length and number of sessions posed a problem. It was felt that the number of sessions should be determined in advance since such limitation has more theoretical support. The weakness of this kind of limit setting, however, is that one may expect extensive behavioral change in too few sessions. As group development is more closely related to the socialization process than is individual counselling, change process is more gradual and often occurs through a process of identification and modelling of group members and the leader. Mahler makes the recommendation that a specific number of sessions should be set when the group starts. Then he feels that the leader

may if necessary make provision to have a second series of sessions with the same group members or to reconstitute the group with new goals. This is the approach that was planned for the present study to include a limit or aim, a specifying of length of each session and of the number of sessions, and realistic expectations so far as change is concerned.

Rationale

Although group counselling originated as an economy measure, it has become recognized as of value as a process in its own right. Group counselling is not regarded today as a means of conserving the counsellor's time and resources. Rather, it is a process that is recognized as a positive and dynamic force (Gawrys and Brown, 1965; Blocher, 1966).

The group counselling process has evolved to be a preventive developmental tool. Students who need help in integrating new experiences into an ongoing behaviour pattern do benefit immensely. Participants do obtain a more objective and realistic appraisal of themselves. The integration of group counselling as a central aspect of the educational process is well supported (Dinkmeyer, 1968; Schmuck and Schmuck, 1971; Hansen, Warner and Smith, 1976).

The group counselling process, however, also goes beyond the developmental level to take into consideration elements of a corrective or remedial nature (Dinkmeyer, 1968, p. 272). Many features of the process serve to show that it is effective in this respect. For example, the group affords feedback to each member so that an immediate testing ground is developed. This facilitates the development of

new and successful behavioural approaches to social and personal problems (Muro and Freeman, 1968; Dinkmeyer and Muro, 1971).

These proponents felt that with the realization that other colleagues have similar or nearly similar problems, the client is able to free himself from a lonely sense of guilt. The effect is that tension and anxiety are reduced, leaving the client more prepared to face rational and logical modes of problem solving. A major benefit too arises from acceptance within the group, a factor which provides strong impetus to constructive action and realistic growth.

It was pointed out (Glasser, 1969) that the group setting (classroom meeting in the Reality Therapy approach) has the advantage of giving the individual the opportunity to express his opinion before a group. It provides the individual with a level of confidence which favours positive growth. The following comment by Dinkmeyer (1968) sums up the rationale of group counselling to both the normal and the behaviour problem child:

> The group provides the opportunity to develop a feeling of equality, confidence, courage and adequacy; to release negative feelings; to work out role identities; and to be loved. (p. 272).

Therefore, because of the inherent and meaningful advantages of the group setting and process, group counselling can be beneficial to the youth, the teacher, and relationships with significant others as well as with society.

Various theoretical aspects of the process of group counselling will be examined briefly, especially as they are

used in the present study. To this end then the balance of the chapter will examine group size, group composition, frequency and length of sessions, group leadership, group organization, establishing and maintaining the group, therapeutic forces in the group, and research in group counselling.

Group Size

The general belief among theorists is that there is a relationship between group performance and group size. A review of the literature to 1960 (Thomas and Fink, 1963), revealed that groups ranged in size from two to twenty, and that group productivity was positively related to group size. These authors emphasized that in no cases were smaller groups superior to larger groups. This sentiment is expressed in a practical way by Ohlsen (1970) as follows:

> If a counselling group is to function effectively, a member must be able to capture the floor to speak, to feel safe in discussing his feelings, to interact meaningfully with others, and to obtain feedback. When making a decision on group size, a counsellor must consider each client's maturity, attention span and ability to invest in others. Each client must recognize that adequate time has been allowed for him, that he will not have to wait too long in order to speak, and that the group is small enough for him to become deeply involved with other members. (pp. 57-58)

The size of the group, therefore, would appear to depend upon the maturity of the participant, the degree of the behavioural concern, and the aims and goals of the treatment (Dinkmeyer and Muro, 1971, pp. 166-168).

In considering group size for adolescent and adult groups, numbers ranging from five to fifteen with an average

of ten were suggested (Warters, 1960; Glanz and Hayes, 1967; Gazda, 1968). The contention regarding size is succinctly expressed (Dinkmeyer and Muro, 1971) as follows:

> From an experiental background, however, we generally support the notion that a group of eight members is optimum for adolescents and adults and a group of ten is maximum for most interacting groups. (p. 167).

In regard to size, Mahler regards a small group as one having two to ten members.

In connection with size, the matter of voluntariness for group counselling is pertinent. While some authors (Mahler, 1969; Gazda, 1968) support the principle of required participation for acting out boys, there are others (Dinkmeyer and Muro, 1971; Ohlsen, 1970; and Hansen et al, 1976) who strongly support the idea of volunteers for group counselling. All of these authors believe that an individual must appreciate the need and value of participation if he is going to spend valuable time and effort in attendance at sessions. In order then to deal with individuals who are recommended for group counselling because of a problem with improper behaviour control, there are two suggestions that the authors agreed upon. It was felt that the involuntary client can overcome resistance if he is offered a trial period in the first place. Another suggestion was to offer a pre-counselling interview and to allow the decision to participate to emerge from the individual.

Group Composition

It is generally agreed that while some commonality is required in the selection of members for a group, the influence on each other of group members must be considered.

The effect that the group has upon the individual, and the influence that the individual has on other members and on the group process are potent forces. But while this is accepted by Peters, Shertzer and Van Hoose (1965), they feel that a balanced variation of personalities in the group helps to achieve movement and momentum in the group counselling session.

One variable of importance is the age range of group members. Some writers suggest an age range of two years. Ohlsen (1970), however, suggested that, though most schools select group members from the same class, the significant criterion should be social maturity rather than age. Another important variable is that of the sex of the members. Most writers favour mixed groups since this is most natural for youths. A recommendation by some writers (Ohlsen, 1969; Gazda, 1971) was made for segregation according to sex when a special reason makes this necessary. The present study had to include only boys as the purpose was to examine delinquents, among others, who are mainly male.

Frequency and Length of Sessions

When one comes to consider frequency and length of sessions, the natural division of the school year provides a practical constant in comprising groups for treatment. It is suggested by Gazda (1971), Mahler (1971), and Fullmer (1971) that the intensity of group involvement and growth are directly related to the frequency and duration of group counselling. These authors felt that the severity of the problems should

be a guide to greater frequency and longer duration of meetings. With adolescents, these authors suggest two group counselling sessions in a week, each of one and a half to two hours, spread over a period of half a term. This suggestion was followed in the present study; group counselling sessions were held twice a week for one and a half hours each over a six week period - twelve sessions in all.

Group Leadership

The primary purpose of the group leader is in "providing a facilitative base, modelling appropriate behaviours and becoming a member-leader of the group" (Hansen, 1976, p. 292). The leader must possess effective communicative skills and be able to guide others in the development of interpersonal skills. While it is difficult to act as leader-member, it has merits. The leader-member has to doff the maintenance of social distance and attempt to become another member in the process. Actually, the strict leadership role creates a mood of dependency among group members and serves to establish a barrier between members and the leader. As a member, however, the leader provides other members an opportunity to develop strengths, and reduces the possibility of barriers militating against development and growth (Gazda, 1971).

At various points within the process of group counselling the leader utilises specific behaviours in terms of styles and activities (Gazda, 1971; Hansen, 1976; Dinkmeyer and Muro, 1971; Shaffer and Galinsky, 1974). These tasks involve planning; getting the session started, in terms of purposes for the meetings and contracts for conduct;

cooperation and sharing; dealing with resistance and transference; timing in terms of changing activities and of interventions when they are necessary; feedback, in providing content and the expression of perceived feelings of the process; reinforcement of a verbal or non-verbal nature, in accordance with a pre-arranged schedule; and role playing techniques. as a means of developing a realistic appreciation of feelings and a concrete illustration of learning.

It should be noted that feedback would be composed of clarification, confrontation and interpretations. These techniques help to focus the group on hidden defenses which may include avoidance and intellectualization as well as misdirected behaviour patterns, that can easily become entrenched in the group (Yalom, 1970).

Role techniques would include a number of activities devised in connection with psychodrama or role theory (Moreno, 1959; Hansen et al, 1976; Shaffer and Galinsky, 1974). Some of the techniques used in the present study are as follows:

Sociodrama - Some group members act out a social or personal situation which the group is discussing, usually involving some conflict with authority figures or some aspect of cognitive dissonance.

Role Playing - The leader provides a brief description of a role the member will play in the situation. This is designed to help members understand their own behaviour. In acting out the role the individual reveals part of himself.

Role Reversal - This is used to get members to see the circumstances from a new perspective. It is used to

heighten understanding or to restore communication between individuals who have begun to lose sensitivity for each other.

Mirror Technique - This affords the individual the opportunity to see himself as others see him. The individual is allowed to stand back from himself for a few moments and see how another person would enact his role. It helps to give the individual a clear picture of the impact his behaviour has on others.

Double - It is employed when an individual is being overshadowed by other members or when the individual is experiencing difficulty in the expression of true feelings in the drama or activity. An auxillary ego is assigned to stand behind the individual so as to act with him in some instances and to act for him in other instances.

Behind the Back - The individual sits with his back to the other group members who discuss their impressions of him. The individual gains the opportunity to learn how others see him and react to him as a person.

In terms of factors such as client satisfaction, harmonious group operation, and positive client change, a number of characteristics of group leaders were suggested by Dinkmeyer and Muro (1971, p. 95-104):

1. The effective group counsellor (or leader) is one who is perceived by group members as being with them and for them as individuals.

2. Group Counsellors are able to operate within affective and developmental phases of the group.

3. Group Counsellors are essentially positive

individuals.

4. Effective group counsellors are those individuals who are able to affix a status role to group members.

5. Successful group counsellors are an integrated blend of specialists and artists.

6. The effective group counsellor may be relatively field dependent. His perception is influenced by the gestalt of the field.

7. The effective group counsellor is one who allows group members autonomy.

8. All group counsellors seem to be more effective when they are matched with the control style and work level of the group members.

Group Organization

Under this heading three points will be considered. They are: group goals, group mobility, and the physical setting for group activity.

Group goals and values have served to provide focus for precise outcomes. There is controversy as to the effectiveness of group goals and values (Dinkmeyer and Muro, 1971), but it should be stressed that whether or not goals are expressed, the counsellor must form a plan of the direction he is going to adopt. The writer would term this group counselling specifications.

Group mobility refers to the use of open air or closed approaches in counselling. The closed group allows no new members after commencement. The open group is characterised by flexibility involving the changing of members and the

introduction of new members as an ongoing activity. Most schools of thought favour the closed groups when dealing with adolescents and adults.

The physical setting for the group seems to be important in terms of ease and comfort as well as a psychological set. Muro and Freeman (1968) recommended that the venue for group counselling should be relatively free from distractions, and should be neutral territory for each person. The permanent location of a group in a common area acts as a solidifying force for progress, since it eliminates the search for a venue and at least some distractions, both of which hinder development. The furnishing and seating may be important, as well, in that they foster or introduce social relationships.

Establishing and Maintaining the Group

After the preliminaries for group counselling are structured, the preparation interview with each member is undertaken. It is believed (Yalom, 1970) that this interview can help the clients to recognize any misconceptions they may have of the process and question unrealistic expectations. The preparation interview could be used by the counsellor to offer a conceptual framework and precise guide for effective behaviour.

The counsellor must seek to become acquainted with and to build rapport among all members of the group. A situation that reduces threat to the members and permits self-exploration is beneficial. The experience must be marked by genuineness in the relationships, positive regard for members, and an expression of empathic understanding (Hansen et al, 1976).

Basic rules for group counselling are advanced and goal setting is initiated in order to clarify the desired outcomes to be achieved in the process. The group moves through certain developmental stages, attempting to gain group identity and develop cohesiveness. It is the leader-member who utilises a variety of techniques and is sympathetic to many frustrations, who must be aware of the central purpose of growth and understanding. He seeks to maintain a balance at all times. This balance provides the propelling force for the development of group patterns and productivity (Yalom, 1970; Hansen et al, 1976).

Group counselling involves patterns of influence, patterns of communication, patterns of sub-grouping, patterns of role taking and patterns of interpersonal sentiments. In some situations these patterns are learnt and acquired through the method of group reinforcement, and in other cases they evolve as a matter of growth through association and osmosis.

In terminating the group a certain amount of preparation is needed. Members should be encouraged to practice new behaviours well in advance of the actual end of the experience. The specific time limits set at the beginning of group counselling act as a useful guide and avoid a sudden conclusion or premature termination.

Characteristics in the Group Counselling Process

Group process and group counselling attempt to bring about behavioural, attitudinal and emotional changes among participants (Fullmer, 1970, Dinkmeyer and Muro, 1971). It is through the group experience that the individual becomes

aware of himself and is able to derive meaning from his interactions with others.

One major force in the group is the language of behaviour. The psychological needs for identity as well as the social needs to belong are brought with each individual to the group situation.

While assumptions about self and others are constantly being challenged and confirmed, and sometimes rejected through the process of reality testing within the group, the individual is brought to examine his beliefs in relation to the behaviour of the other person. This examination would strengthen or weaken his concept of identity. The individual then sees whether these beliefs are in accord or in conflict with those of the society or culture (Fullmer, 1970).

Various forces do invoke positive changes. Mutual assistance, mutual respect, the sharing of perceptions, and commitment are involved in the process. Whatever happens in a group is allowed to occur by the group. The group process operates with purpose and the total person is involved in experiencing this purpose. It is, therefore, important that the leader recognises these characteristics and utilises them in promoting self-understanding, growth, and change.

The following group counselling characteristics were identified (Ohlsen, 1970) as central:

1. Commitment. To profit from group counselling they must recognize the need for assistance and be willing to talk about their problems, solve them, and change their behaviour.

2. Expectations. To benefit most, they must

understand what is expected before they decide to join.

3. Responsibility. Clients must take responsibility for themselves and for modifying their perceptions of the world.

4. Acceptance. This enhances self-esteem and encourages a client to change his behaviour.

5. Attractiveness. If the group meets members' needs, has goals that are perceived as important, and includes prestigious members, it will exert a greater influence on its members.

6. Belonging. All must sense a strong feeling of belonging.

7. Security. When the clients feel reasonably safe in the group, it is easier to be open and express genuine feelings.

8. Tension. Growth involves productive tension.

9. Group Norms. When the member accepts the necessary conditions under which the group operates, he then is influenced by the group norms.

The leader ought to make full use of the group counselling characteristics to facilitate the process of development and re-learning, both in a cognitive and a social way. According to Dinkmeyer and Muro (1971), the leader facilitates the process inasmuch as he:

1. Develops cohesiveness or a sense of belonging.

2. Defines reality for the individual.

3. Induces and releases powerful feelings which process change.

4. Enables one to consider his position and

significance as a person.

5. Enables one to consider the personal meanings in life.

6. Provides a contact in which one can attempt to change, develop social comparisons, and process feedback.

Research in Group Counselling

Research in group counselling applicable in the present study will be detailed in a later chapter. Generally, there has been a number of unrelated attempts at research in various aspects but most of them have been faced with problems. These problems are associated with experimental design and sampling, criterion measures, logistics for gathering data, external variables affecting the outcome, and the difficulty in regard to replication (Ohlsen, 1970; Fullmer, 1971; Mahler, 1971; Gazda, 1971; Dinkmeyer and Muro, 1971).

It seems that reviewers have been critical of the conceptual approaches followed in group counselling as well as of the research designs employed. Dinkmeyer and Muro (1971) believed that future research in group counselling should require a more precise definition of terms, a statement of the theoretical orientation and techniques, a closer awareness of individual goals, and a separation of process and outcome studies. They believed that further studies should pay attention to a comparison of group and individual counselling, group size, length and duration of treatment, group composition, and follow-up evaluations.

It is as a result of these considerations that the present study attempted to follow a behavioural model, to be

specific in the nature of outcomes expected and to introduce more feasible evaluation instruments. Support for this approach comes from Mahler (1971):

> The past research efforts in group counselling have had generally inconclusive results. In describing the present state of evaluative efforts, it is notable that one of the most promising trends is to indicate specific measurable outcome objectives. Behavioural counselling research has been particularly helpful in showing that if one focuses upon one or two precise behaviours, it is possible to ascertain much more clearly the treatment effects. The practices of using global adjustments as an outcome variable will continue to decrease. We need to explore a wider variety of significant behaviours than were studied in early work on behavioural counselling. The trend to study deeper and more significant problems is evident. (p. 607).

Much of the literature on group counselling asserts that the process is extremely significant, but concedes that the research done has been limited in a number of respects. The present study made an attempt to deal with some of the problems associated with research into this vital technique.

On the basis of this background of general group counselling, the appropriate research on reinforcement group counselling will be examined in the following section. This section looks at the behavioural approach to group counselling, noting particularly its use in studies dealing with delinquent populations and other related groups. Behavioural counselling was given support by Mahler (1971) as an approach characterised by precision.

CHAPTER 4

REVIEW OF RELATED STUDIES IN REINFORCEMENT GROUP COUNSELLING

Theory

Since reinforcement group counselling is still in its infancy comparatively few studies have been made of it. But there are some early experiments that have been made to incorporate behaviour modification principles with group counselling and these will be reviewed to see what support they lend to the rationale of the present study. In addition, an attempt has very recently been made to build up a body of theoretical support for this approach (Sheldon Rose, 1972). An explanation of these supports will be presented before the analysis of research studies is undertaken.

In his work on group treatment for children, Sheldon Rose provides a set of procedures that include peer-group treatment and modelling approaches applicable to children in child guidance clinics, juvenile correction schools, mental health clinics and schools. This work proposes a scheme for the determination of the presenting problem, approaches to modify the child's behaviour, cognitions, and attitudes; and techniques aimed at modifying group attributes that comprise cohesiveness, communication, norms, and sub-group structure. The concept model is derived from three sources: behaviour modification following the principles of Skinner (1953), Ullman and Krasner (1965), Bandura (1969), and Wolpe (1969); small group theory propounded by Cartwright and Zander (1968); and goal-oriented practice theory of group treatment by Vinter in 1967, and elaborated by Rose (1972).

Sheldon Rose finds that learning can occur in the observation of others' behaviour. This brings in the principles of modelling derived from Bandura. Since the group affords a large range of models for every member, the use of modelling is appropriately suited to group treatment. The principles of modelling are generally derived from operant or instrumental conditioning. But there are several opportunities in reinforcement group counselling where classical or respondent conditioning would apply. Therefore, in effect, reinforcement group counselling applies the results of classical learning theory and experimental psychology to the process of altering behaviour.

In support of behavioural group treatment, Rose cites studies which utilise tokens as reinforcement. In most studies the behavioural therapy groups showed greatest improvement over groups using play therapy or no treatment (pp. 14-15). Further details must await replication and current experimentation.

In modelling and behaviour rehearsal, as Rose refers to it, the behaviour of group members is altered by observing an older or specially admired child, and by having group mates role play an actual situation. Both of these are combined in order that members learn to perform their behaviour assignments.

Examples of studies using this technique will be presented in the next chapter on Modelling and Social Reinforcers.

Research Studies

In pertinent studies shown later, an effort was made to show that group counselling can be effective if it adopts a learning theory approach. The message in these research studies supports the principle of behavioural group counselling. They show that some structure using reinforcement can be beneficial for successful treatment of identified problems. In fact, some of the studies point to the significance of peer group counselling as well as the element of self and the focus on positive relationships with others.

In some of the following studies, the actual procedure of approach used in group counselling was only outlined and not described in enough detail for replication. There was little attempt to compare the behavioural method with other alternative methods. These studies did not cover wide enough groups of subjects and behaviour problems in various situations. In such a case it is not likely that a useful and significant approach will be actually followed up for universal application. These research studies, however, have given impetus for the present study and have pointed to positive leads to be followed and negative approaches to be avoided.

In a study by Woody (1968) on the integration of behaviour therapy with psychotherapy, the author points out that there ought to be no conflict in these two fields. Woody feels that the two areas are complementary in that the personal factor can be seen in psychotherapy as well as in behaviour therapy. It is realised that the more effective behaviour therapy capitalises upon the potential interaction. Both behaviour therapy and psychotherapy agree that an

interpersonal relationship between the counsellor and client has significant value. As a result, the components of psychotherapy and behaviour therapy could be integrated for successful treatment.

Woody mentioned that three problem areas encountered in psychotherapy could benefit from behaviour therapy. In the first place, treatment could be facilitated and accelerated by using behaviour modification methods in breaking down barriers to progress that appear at various stages in psychotherapy. Secondly, the reduction of uncomfortable symptoms allows the client to engage in a free relationship without the inhibitions and restrictions of those symptoms. Thirdly, it provides the means to engage in treatment for a client who could not benefit from regular verbal psychotherapy. These are the reasons for using group counselling which is made up of a combination of the two approaches, namely, psychotherapy and behaviour modification.

The method of group counselling which focuses their concept of themselves held by students with behaviour problems, as is one of the objects with the present research, was examined at the Junior High School level by Caplan (1957). This study attempted to evaluate new techniques for dealing with adolescent boys in groups. It attempted to study group counselling within the ambit of "self" psychology. It was assumed that group counselling would effect measurable changes in self concepts as well as changes in school achievement and behaviour.

The study made use of regular staff counsellors of a large junior high school in San Francisco, California. The

boys were between the ages of 12 and 15 years and were selected on the basis of records of frequent conflict with school authorities. The boys were referred to by teachers as unruly, unteachable, anti-social or incorrigible. In each year two groups were selected, one as experimental, the other as control. The groups were generally matched on variables such as economic status, intelligence, age, and school record. A Q-technique was developed from fifty self-referent phrases extracted from student biographies. These were presented to the students to be sorted into eleven groups in a forced normal distribution, and ranged from those which described him most to those which described him least. The Q-technique measured the self against the ideal-self concepts at the beginning and end of the one term experiment.

There were three experimental groups who met weekly for a fifty minute session. Group counselling was conducted by the three counsellors on a permissive basis. The counsellors aimed at getting the students to identify the reason for the formation of the groups, and served as non-evaluative sound boards for feelings. For both the experimental and control subjects, regular counselling on an individual basis was available.

The results indicate that a significant change took place in self and ideal-self correlation within each sub-group and the total experimental group and that no such change occurred within any control sub-group or the total control groups. On the basis of a t test to compare the experimental group with the control group in terms of the congruence

of the self and ideal sorts, it was found that the measured change in the experimental group was significantly greater than that of the control group. It was also found that positive changes in citizenship scores was greater in the experimental group than in the control group. However, no clear conclusion can be made regarding the effect of group counselling on academic records. It seems logical to the present writer that group counselling aimed at improvement of outlook of self would directly affect the variable in question and would only affect the academic variable indirectly or in the long run. It was concluded, therefore, that group counselling is a promising technique for dealing with the problems of adolescents. This study of Caplan has much to offer the present approach, but it did not make use of modelling or peer influence.

A study on group psychology for sexual maladjustments (Hadden, 1968) did make mention of the use of peer influence. In the treatment of sexual maladjustment, Hadden feels that the group provides healthy criticism that is realistic and constructive for each of its members, as well as support congruent with the individual's efforts to change. He feels that peer-group authority does not engender the hostility that may arise in a one-to-one relationship with similar clients.

The use of a cognitive-behavioural approach in group counselling is another attempt to apply behaviour modification methods in group treatment. Principles of social learning theory and cognitive dissonance theory were used by Mayer, Rohen and Whiteley (1969) in group counselling with elementary school children. Examples were given to

show how cognitive dissonance could be created in the group counselling process. The aim was to increase or decrease dissonance in relation to probable behavioural outcomes so as to influence changes in children's attitudes or behaviours. The study suggests ways and means of developing these conditions for use in group counselling. It was not an experiment but a set of probable approaches gleaned from theory and experimental observation.

One of the conditions (Condition 4) noted was that group counselling is effective when models are provided, for the observation and guidance of each member. Using principally Bandura's theory, Mayer et al observe that when the model, who may be the counsellor or group member, is reinforced positively for acceptable behaviour, the action appears to the members to be more effective or better than their own behaviour, and this contributes to the individual's dissonance and leads to motivation for change. The behaviour of a model which receives positive reinforcement is more likely to be imitated than the behaviour which does not receive reinforcement. The authors suggest that the model or models must be attractive, important, and possess high prestige. But in order for an individual to appear strong in these characteristics, he ought to receive positive consequences for previous or present behaviours.

The application of learning theory to group counselling has been examined at the elementary school level by Hinds and Roehlke (1970). The authors reported that little research based on a learning theory model has been done at the elementary level. Their study aimed at the application of a learning model in counselling with small groups of

primary children and a study of the effect of this process on classroom behaviour. A total of 40 students was referred by teachers. Four groups were selected from the third, fourth and fifth and combined third and fourth years. They were selected on account of their problem behaviour in the classrooms. The experimental and control groups were formed randomly. The children in the experimental groups took part in group counselling twice a week and no contact was made with the control group.

In this study there was a two-day introductory session when video taping was done in order to help the children to adapt to the use of the video tape and the establishment of baselines for counselling. The counselling phase involved biweekly meetings with both a male and female counsellor for ten weeks - the length of a session being 30-40 minutes. Group counselling with the experimental groups made use of systematic reinforcement to shape towards the adaptive responses and to extinguish interfering responses. Rules of the sessions were given at the beginning and behavioural contingencies were organised through cooperative games as rewards and reinforcers. Points were earned for specified behaviours on an individual basis. Rewards and Reinforcers then comprised points, social and verbal approval by counsellors and peers, tokens, and positive video feedback. The post-counselling phase was made up of the application of the post-test measures.

In this study, independent observers were asked to evaluate the adaptive and interfering responses of clients. On the basis of very precise statistical analyses, it was

found that changes in the experimental groups were significantly greater than those of the control group at the 5% level. It was found that the experimental group did significantly better than the control group on post-classroom measures. A major implication of the study was that before any lasting change in behaviours in the classroom, home or social situation can be attained, the reinforcing effect of significant others must be taken into consideration. It was felt that group counselling in school can serve as a potential force for learning new behaviours. As well, it was clear that children under conditions of group modelling and role-playing learn to distinguish effectively between appropriate behaviours and inappropriate behaviours. The presence and behaviour of peers provide the student with important modelling dynamics and additional reinforcement.

Another attempt to use a behavioural approach in group counselling by Rudner (1973) was recently reported. Using reality therapy in a behavioural group counselling format, the author was able to control effectively classroom behaviour of emotionally disturbed children. The behaviour modification design took a form similar to the token economy system. It was used because it takes a relatively short period to gain results and it is systematic and consistent. The criticism that it is mechanistic and dehumanizing was offset by the use of reality therapy which is characterised by warmth, understanding and a genuineness to aid the client to take responsibility for his actions.

The technique involved the use of a behaviour chart for

each child for the week. A list of target behaviours is posted near the chart and a record of the misbehaviours is made. At the end of each day the child receives stars for good behaviour. These stars help the child to earn tokens which are exchanged at the end of the week for prizes and gifts. Group Counselling was held throughout the week on the ways and means to improve on their actions in the class. Punishment was instituted by the use of the "time-out" period which made the child lose stars. In this study, while no statistical results were presented, the author claims that behaviour problems were arrested appreciably. Further work on group counselling using behaviour modification principles is needed in this and related areas.

A study on behavioural counselling of underachievers by Klein, Quarter and Laxer (1969) sought to find a new behavioural technique to remedy underachievement using risk taking and level of anxiety. There were 60 Grade 7 and 8 students in four conditions; training in moderate risk taking, equal amounts of training in achievement and risk taking, and a control group with no treatment. Each group met twice weekly for 35 minutes for a total of 16 hours over four months. The counsellors were two male and two female graduate students and senior undergraduate students. They were given training over five sessions in handling the counselling techniques required in this experiment.

The results were not successful in isolating the variables and explaining the effectiveness of the approaches adequately. Risk taking was the only variable found to be significant. A multiple comparison of the three means for

risk taking showed significant differences between the groups that had Achievement training and groups that had not. It was felt that the efficacy of training techniques used ought to be in question and might have to be researched further. It seems, however, that it was difficult to pinpoint, because of the number of variables, what really operated effectively.

Two approaches to behavioural Group Counselling were compared by Hedquist and Weinhold (1970) with more favourable results. The aim of the experiment was to increase the frequency of positive behaviours of highly anxious and socially unassertive college students. The sample was selected on the basis of two tests, namely the S-R Inventory of Anxiousness and the A-S scale of the Guilford-Zimmerman Temperament Survey. Subjects were assigned to each of the three samples by means of matching. Two treatment groups had 10 Ss each and the control group had 20 Ss. Two counsellors, one male and one female, were selected and trained to co-lead both treatment groups. Since these two counsellors operated both treatment groups they were given special training to control for the confounding effects of different Counsellor behaviour.

Treatment in this study took the form of two approaches. One was Lazarus' Behaviour Rehearsal Technique, and the other was Mainord's Social Learning Approach. The Behaviour Rehearsal technique attempts to assist each member of a group to make more effective interpersonal responses. Using verbal and non-verbal approaches, clients role play and rehearse new behaviours. Each member identifies a pro-

blem, role plays the elements of the problem, and gets a critique from the group. The member enacts how he would deal with the problem by working upon the ineffective aspects of the situation. Rehearsal of the new behaviours and feedback from the group follow. To assist the member having difficulty with a suggested pattern of responses, direct modelling and coaching activities are used. As a follow-up task, the subjects had to try out these new patterns learnt in outside situations. In the social learning group approach the client had to follow four group rules comprising honesty, responsibility, helpfulness and action. Each member committed himself to a programme of social behaviour change. The task of the co-leaders was to model the process of problem solving. The co-counsellors noted discrepancies in the members' failure to follow rules and any incongruence between their stated value and their actual behaviour. They saw that any problem was kept in focus until a plan for a solution was put into operation. The control group met weekly for teacher-directed small group discussion on general topics. The criterion was response frequency as a measure of change.

An analysis of variance showed significant main effects for treatments, as well as significant effects for treatments interacting with the rate of assertive response change over a 6-week period. Both treatments yielded a greater number of assertive responses in the experimental groups than in the controls, but neither treatment was significantly more effective than the other. It is important to observe that the treatment effects were main-

tained only for the length of the treatment.

A theoretical study by Laxer (1968) involving group counselling and behaviour modification dealt with underachievers, behaviour problems and test anxious students. It was a descriptive paper which made reference to attempts at experiments in Toronto, Canada. Use was made of a behavioural model designed to augment achievement motivation by changing risk-taking patterns. An attempt was made to apply what is called a "behaviour restraint model". The group who exhibit behaviour problems and regularly receive detentions and various forms of punishment agree with each other to restrain their misdemeanours. In return they made an understanding with the teacher to reduce punishment to a minimum. When a member of the group breaks the agreement, the group is convened after school to discuss it, and, if it so warrants, to assign their own form of punishment. Discipline then was in the hands of the group rather than in those of the teacher so long as misdemeanours were kept under control.

While there have been no definitive findings reported from this study, it was generally believed from preliminary observations that behavioural group counselling had much to offer if it is performed in a client-centred milieu. Experimentation and follow-up studies were to be carried on.

Group Reinforcement Counselling of underachievers received support from a study done in Calgary, Alberta, by Altmann, Conklin, and Hughes (1972). Using group counselling and reinforcement principles, they taught Grade 9 underachieving volunteers and non-volunteers effective study skills. After the selection of the students, a total of 74

Ss were involved in the study. Forty students were distributed into five treatment groups, while 34 students served as controls. Ss in three reinforcement groups received a study guide to help in direct discussion. Only the counsellor had the study guide in the fourth reinforcement group. Insight counselling was given the fourth group. In early sessions minimum successes were reinforced, but in later weeks a closer approximation to the study guide was required for reinforcement. Peer reinforcement formed the part of the programme in the direction of students to react to other students' contributions. For reinforcing each other, the students gained reinforcement from the counsellor.

The findings showed that there were mean increases in scores between volunteers and non-volunteers in the four reinforcement groups (significant at the 5% level). There was no significant improvement between volunteers and non-volunteers in the one insight counselling group. Therefore, reinforcement group counselling was effective with volunteers but not with non-volunteers. It is clear that for the school, reinforcement and volunteering for assistance are relevant for progress.

Much closer to the area of delinquency is the study reported by Redfering (1973) on the durability of counselling effects with females. This was a one-year follow-up which revealed positive effects of group counselling with delinquent females.

In an earlier report on group counselling with institutionalized delinquent females, Redfering reported significant gains in the connotative meanings of several

concepts. A year later the experimental group was compared with the normal group. The semantic differential technique on the perception of "father", "mother", "myself", "peers", was used with 12 sets of bipolar adjectives. The questionnaire was given to deduce data on the subjects' post-institutional status. The sample was made up of an experimental group of 18 and a control group of 18 from an Indiana Girls' School. It was believed that subjects who had experienced group counselling would respond more positively towards the concepts than the control group.

The results indicated that the experimental group mean scores for each of the four concepts were significantly different from the mean scores of the control group. On the post-institutional status, there were significant differences in favour of the experimental group in terms of the percentage of subjects released and the number of girls readmitted. While this study is encouraging, the sample was rather small and one should be cautious in drawing conclusions.

It seems that only a modest amount of work is done in helping delinquents to gain confidence in themselves and to attempt to solve their problems through learning principles. One short study which uses behaviour modification by focusing on anxiety source with delinquents was reported by Truax (1971). The study attempted to test the position that the greater the concentration on client's anxiety or threat source, the more successful the outcome in group counselling. Eight groups with ten juvenile delinquents in each were led by ten counsellors. The delinquents were seen twice weekly for twenty-four sessions over three months.

The group counselling sessions were tape-recorded to allow for analysis of focus on anxiety or threat source. Clients were given pre and post tests. The counsellors (six full and four co-counsellors) were experienced and varied in orientation, including some with a client centred approach, others with a didactic approach, a psychoanalytic orientation, or an eclectic outlook. A five-point Likert scale for client anxiety source was used, as well as a number of personality tests. The findings showed that there was a favourable outcome in group counselling with a greater degree of leader focus on anxiety source.

A short report was given by White (1970) on modelling with youthful offenders. The study assessed the "over-controlled hostility" scale (O-H) of the M.M.P.I. and attempted to determine whether high or low O-H subjects preferred to imitate verbally aggressive or non-aggressive models. Inmates from a correctional institution in Tallahassee were chosen as subjects on the basis of extreme scores on the scale. Thirty subjects were chosen in the high group and thirty in the low group. The Rosenweig Picture-Frustration Study yielded responses that were classed as extrapunitive, impunitive, intropunitive, and indeterminate. The next stage was to divide the subjects into three sub-groups and assign the three treatment conditions: aggressive model condition in which the peer model was extrapunitive; non-aggressive model condition in which the model was impunitive; and no-model condition, in which the model remained silent during the treatment. Each subject was asked to verbalise his reaction to the scenes presented

while the experimenters recorded the remarks for analysis by two clinicians.

The results indicated that the high O-H clients were more impunitive than the low O-H clients. On the other hand, low O-H subjects were more verbally aggressive than high O-H subjects. However, regardless of an O-H condition, clients tended to imitate an aggressive model. Moreover, the non-aggressive model did not help to facilitate any impunitive or extrapunitive response.

In spite of the generally successful demonstration of the efficacy of modelling interventions, some authors (Goldstein et al, 1973) found that a systematic use of modelling and its evaluation in clinical and educational settings has been minimal. These authors used modelling to increase independent behaviour among patients and out-patients in a psychiatric hospital in Holland.

Three experiments were conducted with the aim of increasing independent behaviour through modelling procedures. Experiment I included 90 outpatients who sought help voluntarily. They were diagnosed psychoneurotic, mostly of the neurasthenic type. Patients were randomly assigned into three experimental conditions comprising independence modelling, dependence modelling, and no modelling control. The independence modelling represented a major clinical value of the study. The stimulus material comprised 50 tape recorded interpersonal situations involving two individuals. In a situation one individual instigates frustration or threat to independent behaviour of the other individual and this other individual must respond in an

independent or dependent manner. The stimulus materials were developed using Borgatta and Rosenweig P.F. study and supplemented by the authors of this study. The experiment was divided into three sections. The first section or base rate involved the situations 1 to 10. The second section or modelling stage involved situations 11 to 40. The third and final stage was similar to the post test and involved situations 41 to 50.

The results were gained from a five point rating scale of independence-dependence and used an analysis of variance technique. The findings showed a significant positive effect for independence modelling as compared to no modelling for both females and males. Dependence modelling yielded significant increases in dependent responses for females but not males. The other two studies revealed significant gains in independence. One of the studies had a design that included warm structuring and independent modelling versus no structure and independent modelling. The third study followed a design which included modelling and instruction, modelling, instructions and no modelling, and no instructions control. It was suggested that following this successful demonstration of verbal independence modelling, behaviour follow-up testing and provision of transfer to real-life application should be made.

An article on the obtaining of results through modelling by Nye (1973) made suggestions for the practical use of models. The article emphasised the use of live and symbolic models as well as the modelling technique of role reversal and role identification.

In his study, Nye supports the use of modelling and made suggestions gained from the early and scattered use of types and characteristics of models. Live models could have a limited value on the client since the kind of influence varies from one to another. The most direct form of live model is the counsellor himself. Therefore, the counsellor should use his influence in a systematic rather than cursory way. For a teacher or peer model to be effective, they must be perceived as an important and empathic human being. Symbolic models can be provided through written material, audiotape, videotape, and film. They are used to help clients to learn new behaviours. There are three steps in dealing with symbolic models. The first step involves presentation of the written material about the skill to be learnt. The second step involves the presentation of an audiotape, film, or videotape in which the behaviour to be learnt is illustrated. The third step involves helping the client to practice the new behaviour, and this is the rehearsal level. It gives an opportunity to perform the new behaviour in a relatively free atmosphere and non-threatening situation. Role reversal involves the counsellor taking the part of the client and demonstrating the new desired behaviour. The client is then encouraged to perform the new behaviour. Role identification is used to weaken deviant behaviour and suggest alternative behaviours. Instead of "talk" counselling which serves to strengthen disruptive and deviant behaviour, the counsellor could apply a social modelling approach that concentrates on strengthening alternative patterns of behaviour. The counsellor could

ask the student to picture himself in the place of the person he is harming and imagine the unpleasant consequences. This form of role identification could be followed through until positive directions are learned.

Two recent studies that serve to support the effectiveness of reinforcement group counselling using modelling approaches have been reported from the University of New York in Buffalo (Hansen, Niland and Zani, 1969; Hansen, 1972). Hansen suggested that psychologists and educators have been aware of the forcefulness of peer influence on individuals but have been slow to make use of this knowledge in experimentation and practice. He suggested that there is evidence that the use of modelling principles in counselling could be an effective technique. Research is beginning to produce answers to doubts that are apparent in this area and further research should be continuing to strengthen the technique. Modelling techniques have been shown to be capable of use in a variety of problems ranging from the cognitive aspects to those that are affective. The techniques have been found effective with various ages of individuals, and research has shown that a variety of types of models have proved effective. Hansen feels that the use of models in group counselling appears to be a powerful tool to those interested in behavioural change.

In the other study on model reinforcement in group counselling with elementary school children, Hansen showed successful results. The study investigated the effectiveness of model reinforcement and reinforcement group counselling using sociometric status as a criterion. Eighteen

sociometrically low students received group counselling along with some students with high sociometric status as models, making six groups. Eighteen others received group counselling with all sociometrically low students, making three groups. There was a control group that met for an activity period. An analysis of covariance was used to determine the difference of change in social acceptance in the three treatments.

The findings indicated that low sociometric students in model reinforcement groups made significantly greater gains in social acceptance than either those who received counselling without models or the control group. Follow-up after two months confirmed the findings positively.

The next section examines modelling and social reinforcers in terms of theory and research. This is followed by a review of the theory and appropriate research on Rational Emotive Therapy. We have gained so far a picture of group counselling, in which the central mode of treatment is concerned. The other two elements (Modelling and Social Reinforcers, Rational Emotive Therapy) are also presented since they form part of the treatment as well.

CHAPTER 5

MODELLING AND SOCIAL REINFORCERS

Modelling

The work of Bandura (1969, 1970) has been largely examined since it was he who pioneered study in this field. Studies in modelling, vicarious learning and social learning gained impetus with the publication of a book that linked social learning and personality development (Bandura and Walters, 1963).

Some studies (Krumboltz and Thoresen, 1964; Krumboltz et al, 1967; Hansen, 1969) have shown the effectiveness of modelling in specific situations. Modelling has taken a central place in social learning theory and is one of the effective methods in behaviour modification. Research in recent years on various aspects of the psychological principles of modelling theory has grown.

Psychologists and educators have been slow to utilise the power of peer influences on individuals. We have seen some evidence, though not a substantial amount of research, to show that modelling procedures are effective in counselling. Modelling techniques can be used with problems that range from the cognitive to the affective. The use of modelling in group counselling appears to be effective for those concerned with behaviour change. But this has been the result only of very few studies since research in this area is only in its infancy.

Modelling for behaviour change is based on imitative learning, observational learning, or vicarious learning.

This refers to simple modelling or social modelling. Bandura (1969) formulated the theory of observational learning called the contiguity-mediational theory. There must be a contiguity between the stimuli and the model response, a necessary condition. Imaginal and verbal systems as well as coded memory representations act as mediators in subsequent response retrieval and reproduction. Four approaches operate and they include attention, retention, motor reproduction and incentive-motivation. Reinforcement affects acquisition only in so far as it sustains attentiveness in the observer. Symbolic coding from the model facilitates retention. The contribution, therefore, of reinforcement is to facilitate the performance of the modelled response.

There are three major forms of models which can be incorporated in counselling. These included filmed models, taped models, and live models. Procedures for using models must consider two major questions: How is the modelled behaviour to be presented? and what characteristics should the model possess? The types of models, the selection process, the type of problem attempted with the aid of the model, and the type of client with whom the modelling is to take place are problems which research in group counselling is now beginning to face. Basically, the model must invoke confidence, possess prestige and be socially successful. The closer the identification with the model, the more will vicarious or imitative learning take place.

The model is useful in group counselling in two ways: (a) to introduce novel responses into the client's repertoire or to influence the choice of responses that the client will

make from his existing repertory; (b) to increase the level of attending behaviour and to provide incentive for the reproduction of the modelled response.

Modelling procedures generally lend themselves to precise interventions in group counselling. New behavioural patterns are gained through observation of the target behaviour and its consequences. The modelling procedures include the introduction of potential models, specifying the modification of situational conditions to facilitate imitation, and the training in observational and imitational skills. In addition, reinforcement and role-playing are used throughout meetings. The group possesses an abundance of potential models, which can be utilised to advantage without disrupting social patterns.

Four aspects of modelling that Rose (1972) stresses are: prerequisites of imitation, the principles for increasing the probability of imitation, the types of models and the techniques used in the presentation of models.

A necessary condition for imitation is the subject's response to the model's behaviour. In order to imitate a model one has to attend to the presenting behaviour and perceive it, and following this imitation can be encouraged. The client has to be trained to observe the behaviours most useful to him. He is instructed by the counsellor to look for specific model behaviours and their outcomes. The counsellor may also develop a special observational plan and train group members to follow it. Games and group activities are developed to aid group members in this process. Many clients must be trained to role-play by demonstration and prompting. Reinforcement schedules may also

be used in the training of imitation in group games. All of these activities help members to enjoy groups, to develop observational skills, to be attracted to the group and to develop interaction skills in a non-threatening way. This is the first step in the process of peer-group interaction.

Effectiveness of the model is a significant characteristic in the process of reinforcement group counselling. This characteristic, to a large extent, determines the degree to which the client imitates new behaviours. The probability of strenghening the client's behaviour will be increased if the model provides a high rewarding potential, if the model displays competency in areas highly regarded by the observer, and if the model possesses renown and esteemed social power in relation to the observer. A model must show some of the observers cultural characteristics such as race, youth, sex, history of delinquency and background. Models must project themselves in a way that the client could realistically believe he could expect of himself. Clients appear to prefer to follow models from among the high powered children than among the low-powered children. Models, therefore, must be regarded as powerful persons by group members who are able to possess the potential to share relevant rewards and punishment. Rose (1972) used as models for groups of juvenile offenders individuals who possessed several of the aforementioned characteristics. In one case for a male group he used reformed delinquents who were in regular employment, who had been more athletic than average, and who were members of high status gangs. As dependency on the model increases the probability of imitation among

members, the counsellor must foster the client's dependency quite early in the session. The counsellor can do this by maintaining a high degree of structure in group counselling, by assisting members in adapting in the group, and by direct advice when it is requested. But as the sessions develop, independence from the counsellor and models must be taught as a preparation for termination.

In order to increase the observing behaviour, incentive control is more important than variation in mode of observation. For this reason Rose believes the modelling should be combined with reinforcement principles. The matching of the client's behaviour with that of the model is strengthened when the model is reinforced. The model must be rewarded in the presence of the client who will be imitating. On the other hand, when the model is directly or vicariously punished there appears to be a reduction in the frequency of matching responses. The counsellor must be sure that full attention is given to this. The counsellor needs to make use of the optimal combination of principles so as to maximize the probability of success.

Rose (1972) points out that a research by Hawkins (1964) has particular relevance. The subjects were adult schizophrenic patients but the method could be applicable to juvenile delinquents. The experiment aimed at increasing the frequency of affectively-toned verbal statements during group treatment. There were three conditions: first, patient-models avoided the use of affectively-toned statements; secondly, the patient-models frequently used such words; and thirdly, no patient-models were used. In all

three conditions the leader reinforced all affectively-toned statements. The results showed that modelling with reinforcement increased the frequency of affectively-toned statements far more than either of the other two conditions. Rose shows that it is important to break down complex behaviour patterns into smaller units which can be modelled separately and reinforced appropriately. Further, behaviour rehearsal can be used, directly or indirectly to facilitate retention of the initially-modelled behaviour.

Model sources have been another subject which Rose has developed. The main source is the group members themselves. Where group members have similar problems, the members observe the maladaptive behaviour of their peers, which is reinforced from time to time and thus maintained. It is believed that group members should be selected to display a range of both maladaptive and adaptive behaviour patterns, and as the group develops, members who exhibit the desired adaptive patterns should be chosen as models.

Another source of models is the counsellor himself, although this has limited application to his clients. The counsellor may present modelled behaviour in anecdote or role-play. Clients, however, seem to be capable of determining what to do in treatment and appear to be attracted to the counsellor whose actions and expectations are consistent.

The invited guest as a model source is attractive to group members. This type of model discussed "moral dilemmas" faced in adolescence, and the method of solution in a socially accepted way. In this category a visit by a reformed delinquent to a group of juvenile offenders was

found to have merit. The reformed delinquents were employed, drove cars and had girl friends. The ex-delinquents were held in high esteem by the group and were used as assistant counsellors, since they performed the positive behaviours (physical and verbal) that the counsellor required for imitation. These models were much more effective than leaders or parents. It illustrates the fact that models must have population and cultural characteristics similar to the group members but at the same time possess adaptive behaviours in their repertoire.

The presentation of models can be made in various forms - through tapes, videotapes, films and persons themselves. Taped, videotaped or filmed models are extremely useful in treatment groups where there are no adequate living models. In verbal therapy the researchers (Truax, Carkhuff and Kodman, 1965) allowed one set of subjects to listen to tapes showing positive self-exploration before treatment. The control group did not receive this form of preparation. Following the same treatment to the two groups, the experimental group showed greater change on a variety of personality tests.

Two researchers (Creer and Miklich, 1970) reported the use of self-modelling procedures using the videotape in the treatment of a ten-year old asthmatic boy. The boy spent most of his time watching television and engaging in individual reading, but was unsociable since he only responded to other children with temper tantrums. In the presence of adults, he laughed a lot and demonstrated silly behaviours. He overslept in the morning and left his room untidy. Two tapes

were developed for treatment. The first tape showed inappropriate behaviour chains, in which the boy behaved in his usual manner. The second tape included appropriate behavioural chains showing the boy getting up promptly in the morning, standing up to other boys, making contacts on the playing field, and interacting with an adult positively. All the scenes were rehearsed for accuracy. The tapes were looked at daily for alternating two week periods. When appropriate behaviours were witnessed, the boy's behaviours improved; when inappropriate behaviours were viewed, the boy's behaviours fell.

In a study, of the kind described above, the client has to focus on specific behaviours. It could take some time to find a natural model. Therefore, the procedure of role playing is generally used. Role playing permits the subject to observe a small range of behaviours in repeated situations in a short period of time. When a live model is present, role playing is performed both to imitate the client's actions as well as the actions to be modelled. The clients are to observe the differences.

In most cases the model plays the client's role at first. Then various group members who had rehearsed a designated role also perform. Finally, the client rehearses his own role which includes the behaviours he has observed. With a variation in models the client has a greater selection of behaviour styles. This increases the chance of stabilization of the new behaviour after it is learned. It should be noted that the model ought to be rewarded immediately following the role play, and the clients should be given specific observational clues.

A variation on the principle of modelling is the use of written scripts (Sarason and Ganzer, 1969). These were used with groups of institutionalized delinquents. The authors believed that delinquents were basically characterised by a background of unfortunate and inadequate modelling experiences. They aimed at demonstrating the effectiveness of new, socially acceptable social models for the delinquent.

The social models in that study were graduate students in psychology. These models role-played situations that were likely to occur following discharge from the institution. Some of these situations include the following: search for employment, planning of a home, coping with group pressure likely to encourage the reintroduction to delinquency acts, and taking responsibility. The procedures for the individual session are described as follows:

(Sheldon Rose, p. 119, from Sarason and Ganzer, p. 190).

Each session is attended by six persons, two models and four boys. One complete scene is used for each meeting.

Each meeting follows a sequence:

(a) One model introduces and describes the scene for the day and this is recorded on tape.

(b) Models role-play the scripts while the boys observe;

(c) One boy is called upon to summarize and explain the content and outcome of the situation;

(d) Models comment and discuss the scene, then replay the recording;

(e) Pairs of boys imitate and rehearse the roles and behaviours;

(f) A short "break" is taken, while soft drinks are served and one of the two role-playing imitations is replayed;

(g) The remaining boys act out the scene;

(h) One of these two performances is replayed; and, finally,

(i) Final summaries and comments concerning the scene, aspects of its importance, and general applicability are emphasised.

In this study the modelling group was compared with a control group which received no treatment whatsoever. The semantic differential and the Wahler self-description inventory were the scales used. The results showed that the experimental groups showed greater change in behaviour and attitudes than the control group, and that the experimental group expressed more dissatisfaction with themselves personally while the control group revealed more satisfaction with themselves. Since delinquents tend to be more active and restless than other boys, this study was most appropriate. The modelling in this experiment involved much physical activity. This activity was maintained throughout the session by the counsellor who got the students to stand up and move around the room. Breaks were taken regularly to take account of a short attention span of twenty to thirty minutes.

In this study, Rose points out that less academic and lower socio-economic class models were preferable. This was suggested because imitation is less likely to occur if there is too great a discrepancy between the model and the observer

on these variables.

After the observation of the model, the client has to imitate his behaviour. It is at this point that the leader or clients practice the part of significant others and the particular client plays his own role. The use of role-playing is termed behavioural rehearsal after Lazarus (1966). Behaviour rehearsal affords the client practice in a protected situation in order that he will be less anxious in the real-life situation and better able to succeed. This is presented by model presentation, advice or simple description of the way the client should act in a given situation. It is usually accompanied by behaviour assignment as in the case of rational emotive therapy so that the client could try out the new behaviours in the client's environment.

Rose notes that modelling and behaviour rehearsal could be enjoyable diversions in the changing of client's behaviours. The counsellor, however, looks upon modelling and behaviour rehearsal as central to the whole treatment process.

Modelling has been used to form part of the treatment process in a variety of studies. These studies coupled modelling with assertive behaviour and social skills training.

One of these studies was an investigation by Rathus (1973). He examined assertive behaviour using videotape-mediated assertive models and directed practice. Twenty-eight undergraduate women in college received assertive training and observed videotaped assertive models. They practiced nine types of assertive responses during a seven week period. Another sample of twenty-five subjects was

assigned to a placebo treatment condition in which they observed videotaped models who became desensitized to fear. A third sample of 25 subjects received no treatment whatsoever.

In the Rathus study, all subjects were given a pre and post test which consisted of a schedule of 30 statements. They responded in terms of whether the statements were characteristic or uncharacteristic of them according to a six-point scale from a rating of -3 to a rating of +3. The results, obtained using multiple comparisons, showed that the experimental group (Assertive Training Subjects) did significantly better than either the placebo group or the control group. Further, on the basis of independent ratings by external judges, the same results were obtained. Moreover, on the basis of a Fear Survey inventory, the results suggested trends showing that the experimental subjects reported lower general fear than the placebo or no treatment subjects. Thus the three forms of measurement used to demonstrate the effectiveness of the treatment, provide a pattern that lends support to the present investigation.

Another study showing the application of modelling as part of a treatment design was made by Hersen, Eisler and Miller (1973). In their study, practice and instructions were linked with modelling to show the effect on assertive behaviour. There were five groups of ten subjects each of unassertive psychiatric patients matched on the basis of age, education, diagnosis, and self-reported assertiveness. The five conditions were (1) Test-retest, (2) Practice Control, (3) Instruction, (4) Modelling, (5) Modelling plus

instructions. All subjects were videotaped when they responded to interpersonal situations which required them to react to problems narrated on real life situations in an assertive manner. Using a behavioural assertiveness test, pre and post responses were rated by independent judges on seven verbal and non-verbal aspects of assertiveness. Again, with the application of multiple comparisons, the results revealed that the "modelling plus instructions" group was better than or equal to the Modelling group or the Instructions group, taken individually, on five of the seven aspects. Instructions alone or modelling alone led to greatest gain in the other two aspects. The self-report measure of assertiveness revealed no differences among groups. The present writer would suggest that the self-report measure can only work with subjects who are generally mature and stable. In addition, the researchers (Hersen et al, 1973) do suggest that this lack of sensitivity connected with the self-report measure may be due to an "attitudinal lag" on the part of the subject and the brevity of the treatment, both of which "do not coincide with rapid overt behavioural improvement".

A further study using modelling along with behaviour rehearsal and coaching to improve on social skills is reported by Twentyman and McFall (1975). On the basis of the Survey of Heterosexual Interactions, a self-report measure, sixty male subjects from a population of 604 males in an introductory psychology class met the criteria for shyness in their inability to interact with women. After final selection the experimental group (behaviour training group) was composed of 15, and the assessment - only control group

received 16 subjects. The treatment consisted of behaviour rehearsal, modelling and coaching. The results indicated that subjects in the experimental group showed less physiological reaction (pulse rate) in the testing situation, reported reduced anxiety, and were rated as more skillful than the control group subjects. Personal ratings in diaries also support this conclusion.

A final study linking modelling with other forms of treatment in the improvement of social skills was reported by Edelstein and Eisler (1976). They used specific behavioural components in treatment, and these included eye contact, speech characteristics, head and arm gestures and affect. The study comprised one case only.

A 32-year-old psychiatric patient pretested low on the specific behaviours. Eight social training and generalized scenes were structured to include situations relevant to those that the subject would encounter after leaving the hospital. Four videotape taped scenes of appropriate modelling behaviour were presented for training. This was followed by four generalization scenes for practice. Feedback was used to assist the subject in focusing upon the specific behaviour and improving upon his responses.

The results obtained through rating and presented graphically, showed that there were significant gains in all behaviour components of social skills with the combined method. No conclusion could be made in connection with the carry over of the effects of training to real-life situations. It should be noted that while modelling alone did tend to increase ratings of affect it did not appear to have an

effect on eye contact and gestures.

The studies of modelling show that the techniques are being used increasingly in recent times to enhance experimental treatments. This supports the approach taken in the present study.

Social Reinforcers

Research in verbal conditioning has shown psychologists the potential value of rewards. These are intangibles for which man spends time working with expectation. It has been pointed out in various works (e.g., Beech, 1969; Argyle, 1967) that the individual seeks social approval or its symbols. The individual expects such approval in terms of gestures, eye gazes, non-verbal signs, signals of love, and tangible gratifications, such rewards are known as social reinforcements.

Social reinforcers opperate effectively only under three conditions. First, those involved are, in fact, anxious to obtain social approval as they are in need of food and drink. Second, the symbols of such approval must be easy to manipulate and unequivocal. Third, it should be possible that social approval given as a consequence of an action will increase the frequency and occurrence of that action. In respect of the latter condition we may say that in most circumstances, approval of an action will strengthen that action and in addition strengthen the class of related actions. The potency of simple social reinforcements has been explored and supported in various studies (Beech, 1969).

Social reinforcement can be used according to an operant model. It should certainly be systematically applied

and logically given if learning or group counselling is dependent upon it. It should be followed immediately upon the eliciting of desirable behaviour, as in the case of the expression of self-esteem or regard for others. If, on the other hand, some form of undesirable behaviour is to be discouraged, then the subject is immediately disregarded after the expression of the disruptive behaviour or there is a mild confrontation of negative assertions with the facial expression and appropriate behaviour that specifically give the true message.

Krasner (1955) investigated thirty-one articles that reported research on conditioning verbal behaviour. These studies were reveiwed in terms of setting, verbal responses, reinforcing stimuli, populations, controls, length of sessions, relationship to personality variables, results and awareness. The majority of studies reported positive results ensuing from the use of such generalized reinforcers as "good" and "mmm-hmm".

Sulzer and Mayer (1972) point out that social reinforcers are conditioned reinforcers. They refer to giving attention, smiling and verbal statements as some of the major kinds. From the literature they have extracted a number of examples that can be used with adolescents and young adults. This list is shown:

Some typical Social Reinforcers that can be delivered immediately to children and adults (Adapted from Sulzer and Mayer, 1972, p. 31).

Social Reinforcers - Young Adults and Adults

Actions

1. Nod
2. Smile
3. Laugh (with, not at)
4. Wink
5. Signal or gesture approval
6. Orient glance directly towards face
7. Give assistance when required
8. Comment positively on appearance
9. Pat on the back
10. Ask individual to discuss something before group
11. Ask individual about items of interest to him
12. Ask him to demonstrate something

Verbal Expressions

1. Very good
2. O.K.
3. Beautiful
4. Good for you
5. That is excellent
6. Yeah
7. Right
8. I agree
9. Good idea
10. Fine
11. What a clever idea
12. You really are creative, innovative, and so on
13. See how you're improving
14. That looks better than last time
15. Keep up the good work
16. You've apparently got the idea
17. Little by little we're getting there
18. See how that has improved
19. Mmmm
20. You're really becoming an expert at this
21. Do you see what an effective job ---- has done?
22. You are very patient
23. I admire your persistence, courage, idealism, enthusiasm, dedication, and so on
24. Mmm Hmm

In their work on behaviour-analysis procedures with children and youth, Sulzer-Azaroff and Mayer (1977, pp. 122-129) gave further support for social reinforcement. They showed that social reinforcement increased the rates of attention not only of target students but also of adjacent peers in a group. Specific praise appeared to increase the likelihood that specific aspects of behaviour will be

repeated in the future. They showed that such reinforcement enhanced the individual's self-esteem and helped him to learn to use self praise when necessary. They felt also that social reinforcers are especially practical and can be readily delivered immediately after a behaviour occurs in individual and small group situations. In experiments, they established that both positive verbal and non-verbal social reinforcement strategies have powerful and effective applications in group and peer situations.

Hall (1975, pp. 9-19) supported the theme of powerful effectiveness by social reinforcement applied to youths. He pointed out a number of conditions that are necessary. These conditions are summarised since they will be applied in the present study:

(1) Use it contingently to reinforce appropriate behaviour.

(2) Vary verbal praise by increasing positive vocabulary.

(3) When listening provide eye contact, learn to smile and ask questions; do not jump in abruptly as this is punishing.

(4) Pair social reinforcement with other reinforcers; use a smile or praise with other rewards.

(5) Skill at giving praise involves a private praise, a touch or pat, a quiet word, a written note or a gesture.

(6) One can help other people to appreciate the reinforcement and, therefore, to learn how to share it; your attention, genuine praise and appropriate performance can provide useful experience through imitation.

(7) Specific praise is usually more effective than general praise, since being specific helps to clarify what is the actual behaviour that resulted in the praise.

In the present study a careful application of social reinforcement is given the two groups in the experiment. Variation in the social reinforcers seem to be much more appreciated by individuals.

CHAPTER 6

RATIONAL EMOTIVE THERAPY

Rational Emotive Therapy* is a form of verbal insight counselling developed by Dr. Albert Ellis of New York in 1954. From 1943 in his early practice in marital counselling, Ellis became aware that his patients were not only lacking in information but were emotionally and psychologically disturbed. He moved from psychoanalysis to a neo-Freudian approach but was still dissatisfied. He then became interested in learning theory and tried deconditioning methods on his patients and this, too, in its pure sense, did not meet with his expectations.

It was at this stage that Ellis attempted to teach his patients to change their thinking in accordance with a rational approach to their problems. Though he claims no originality for his approach, he has put the concepts together in a logical and realistic manner. He has linked the cognitive, emotive and behaviouristic approaches together in a combined theory.

Rational Emotive Therapy makes certain assumptions (Patterson, 1966, p. 109) about the nature of man as well as the root of his unhappiness or emotional disturbances. Some of these assumptions are as follows:

1. Man is uniquely rational as well as irrational. When he is thinking and behaving rationally, he is effective, happy and competent.

* (See Appendix C for more details).

2. Emotional or psychological disturbance - neurotic behaviour - is a result of irrational and illogical thinking.

3. Irrational thinking originates in the early illogical learning that the individual is biologically disposed towards and which he may acquire more specifically from his parents and his culture.

4. Human beings are verbal animals, and thinking usually occurs through the use of symbols or language.

5. Continuing states of emotional disturbance, being a result of self-verbalizations, are thus determined, not by external circumstances or events, but by the perceptions and attitudes towards these events which are incorporated in the internalized sentences about them.

6. Negative and self-defeating thoughts and emotions must thus be attacked by reorganizing perceptions and thinking so that thinking becomes logical and rational rather than illogical and irrational.

In his book, Ellis (1962, p. 61) makes a strong case for the introduction of reason and logic into counselling and psychotherapy. He identifies a number of ideas and values that are irrational, superstitious, or nonsensical, and which in western society would inevitably appear to lead to neuroses. These are the concepts that the counsellor must challenge in the client and lead him to see how inadequate and weak are some of his assumptions.

The irrational ideas are as follows:

"1. It is essential that one be loved by virtually everyone in his community.

2. One must be perfectly competent, adequate and

achieving to consider oneself worthwhile.

3. Some people are bad, wicked or villainous and, therefore, should be blamed or punished.

4. It is a terrible catastrophe when things aren't as one wants them to be.

5. Unhappiness is caused by outside circumstances and the individual has no control over it.

6. Dangerous or fearsome things are causes for great concern, and their possibility must be continually dwelt upon.

7. It is easier to avoid certain difficulties and self-responsibilities than to face them.

8. One should be dependent on others and must have someone stronger on whom to rely.

9. Past experiences and events are the determiners of present behaviour, the influence of the past cannot be eradicated.

10. One should be quite upset over other peoples' problems and disturbances.

11. There is always a right or perfect solution to every problem, and it must be found or the results will be catastrophic."

These nonsensical ideas are almost universal in the society, but when they are reinforced by continuous self-indoctrination, they lead to emotional upsets and neuroses, as they cannot be lived up to.

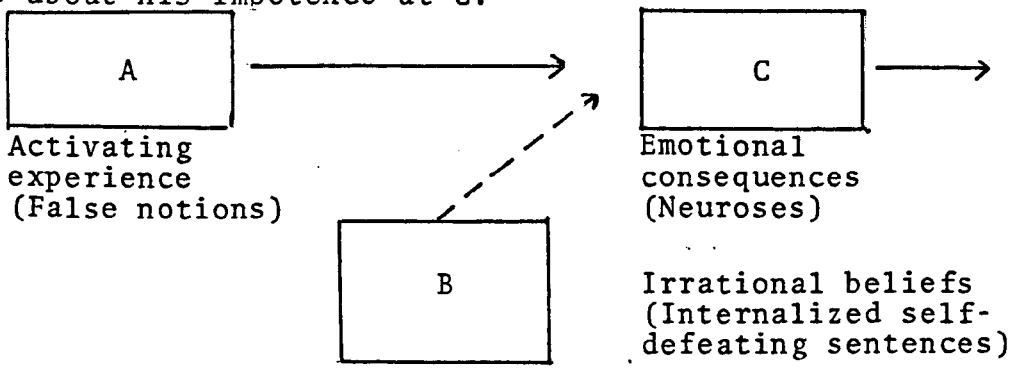
The ABC Theory

The ABC theory was devised out of a mild attack on the Freudian concept of the theory of the unconscious. The

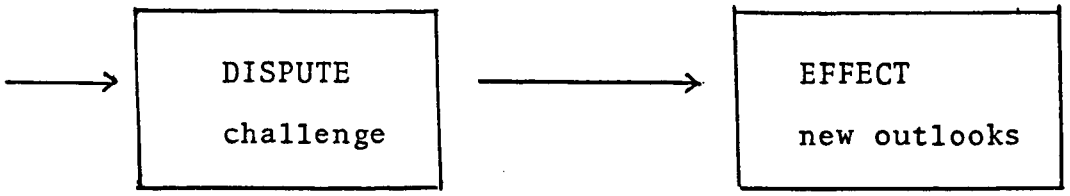
theory does not accept the view that the unconscious thoughts or feelings are the cause of the present problem. The theory holds that it is not the facts of the problem or the circumstances surrounding the acquiring of the disturbance that cause the problem. It is the present causation of the difficulties that is unknown but not deeply hidden. In almost all instances, this can be quickly brought to awareness.

The thoery notes that at point A something happens that is an activating experience. A girl makes a comment about the small size of the client's sex organs and indicates that he is not capable. At point C the patient becomes impotent. Unfortunately, the client believes that A causes C, and develops feelings of anxiety, worthlessness and depression. Probably the patient develops guilt feelings for lusting after his mother at a very early age. In effect, A has little to do with C.

Actually in the ABC outlook, it is really B which causes C. B is in effect the set of irrational beliefs. The client at this point makes self-defeating sentences, "that it will be terrible if I cannot please her", "it will be awful if she thinks I am no good." Ellis feels that by telling himself these catastrophizing utterances, the patient literally brings about his impotence at C.



The theory (Ellis, 1975) has been expanded in recent years to include a DE component. In the counselling session the counsellor has to show how the irrational beliefs create dysfunctional consequences. The client must then be taught how to Dispute with himself in order to change or surrender these irrational beliefs. This is based on a freedom for confrontation, challenge and behaviouristic attacks. Finally, the counsellor proceeds to develop new and better functioning Effects. In this stage the client is given help to adopt new and sounder philosophies or outlooks for living.



This procedure is not only followed by the Counsellor, but also by the client as well. The Counsellor teaches his client to use the ABC approach in his own circumstances.

Rational emotive therapy does make use of various humanistic concepts from psychoanalytic theory and from the Rogerian client-centred approach (Ellis, 1970). It begins with the client's feelings and helps the client to express his negative emotions of anxiety, guilt and hostility as well as his positive emotions of love, desire and self-interest. It keeps the client in the here and now by encouraging him to disclose feelings about the counsellor and individual members when in a group situation and people to whom he relates in everyday life. It directs the client to take emotional risks or to engage in verbal and non-verbal exercises. In this sense it is fairly structured and somewhat directive. It makes use of role playing, storytelling,

humour and strong language so as to make distinctive points in a forceful emotional manner. It makes use of pleasure giving methods to help the client feel better and to give him learning experiences so as to make him more responsive to the work-oriented aspects of the treatment. It makes use of emotional attacks at times to lead him to radically new experiences. The counsellor reveals many of his own authentic and personal feelings, desires and responses, in order to show that he can take risks, and to serve as a model to the client. The counsellor expresses unconditional positive regard in that he fully accepts the client with all his failings. The counsellor is accepting and non-judgemental although he may deplore some of the client's actions. The counsellor is active and confronting rather than passive and non-directive.

In the paper (Ellis, 1970) on his theory, Ellis points out that behaviour therapy methods are actively used. The client is reinforced verbally throughout treatment for positive changes. Operant training and desensitizing techniques are applied in the treatment. Activity homework is assigned for application in real-life situations. Premack's principle is taught to the client in that the client should only permit himself immediate rewarding behaviours consequent upon the performance of more difficult rewarding acts. The client is forced to keep practicing new behaviours until he can automatically enjoy them.

RET adopts the principles of cognitive psychology in a number of ways (Ellis, 1970). The counsellor shows the client how his premises are illogical, inconsistent and contradictory and as such are invalid and untenable. He teaches the

client to challenge himself and attack his self-defeating internalizations. He demonstrates the need for the client to change or alter his thoughts, feelings, or actions. He discusses the purpose of living and the kinds of goals on which the client should concentrate. He uses relevant information from other fields to assist the client. He teaches the client principles of human behaviour. And, most important of all, he gives the client an opportunity to rehearse the method of teaching himself new modes of thinking and new approaches to his concerns.

Rational Emotive Therapy with Groups

This form of therapy has also been used in groups to a large extent (Ellis, 1962). The method of dealing with a problem, challenging the internalized statements and attempting to find solutions by learning new ways to think about the problem works well in the group setting. The leader trains members in the approach. Everyone in the group is given scope to speak his mind on his problems and to air dislikes. The discussion is fully open and frank.

In the group it is harder to bypass problems since all members take the role of counsellor one time or another. Members do show others how illogical some of their fears are. Each member hears problems of other people and this is therapeutic in itself since the working through of the problem is a matter for all. People recognise their own neurotic fears in others so that the principle of modelling operates. Learning in a social setting does yield more alternatives.

Finally, a study by Goldfried, Decenteceo and Weinberg (1974) attempted to use rational emotive therapy

along with systematic desensitization to provide clients with a technique for the self-control of anxiety. The aim of this study was to use RET to outline specific steps for implementing relearning. Four subjects with speech anxiety had their problems analyzed in rational terms and were given counselling in terms of their potential irrational assumptions. With minimal counsellor contact, a five point procedure was followed, and these included the following: exposure to an anxiety-provoking situation; evaluation of initial anxiety level; expression of the self-defeating anxiety provoking attitudes; a rational re-evaluation of the experience; and a final anxiety level rating. Although the treatment lasted for three weeks, the questionnaire data obtained before and after treatment indicated that changes did take place, and that anxiety was reduced significantly.

This form of counselling is used in the present study to strengthen the approach to the relearning of new behaviours.

Conclusion

RET is a distinct type of counselling. Its theory is comprehensive and biosocial. It provides for a considerable degree of variation and eclecticism in its methodology and practice (Arbuckle, 1967). Unlike other forms of counselling Ellis notes that there is no single, necessary and sufficient condition, so that the counsellor can be free to follow any combination of approaches to gain improvement in personality changes. In the process the clients are not seen in as many sessions as in other forms of counselling, since a lot of follow-up activity is assigned to the client for his own

working-through. By this means the time and efforts of both the counsellor and the client are used to best advantage. Ellis feels that success in this form of counselling is strongly permanent.

On the other hand RET is a challenging and tough method and must only be practiced after confidence is gained in the application of the method and by those with basic professional training. It is not wise to use this method with clients who are extremely shy, deeply mentally ill and highly suggestible. The method stresses very stringent intellect and thinking probably at the expense of emotions and feelings (Arbuckle, 1967). The stress on rationality can be somewhat heavy for the client. It seems that the judgement of the counsellor leaves little room to the judgement of the client at times. With the skilled counsellor, however, this problem can be tempered.

RET is used in the present study since it lends structure and organisation to the discussions of the central themes - on self and others. It is a realistic method of counselling which teaches the client the use of basic techniques that can be applied personally in everyday living. It makes use of cognitive methods as well as humanistic methods, both of which contribute to the purpose of the present research.

CHAPTER 7

SUPPORT FROM PREVIOUS RESEARCH IN THE FORMULATION OF RESEARCH QUESTIONS

In the examination of the theories and studies so far we have looked at the basic elements of group counselling noting that this involved interaction of members of a small group using verbal insight; the fundamental principles of modelling which employed the elements of learning theory and of reinforcement; and the underlying theory and practical explanation of Rational Emotive Therapy which utilised the approaches of cognitive and behavioural psychology to challenge the client constantly and to guide him to adopting a new outlook for correcting objectionable behaviour and for everyday living. All of these ideas and principles are used in the approach in this study which attempts to apply a realistic form of group counselling to the problems of delinquency and the delinquency-prone who is the youth in school overcome by a behaviour disturbance of some kind.

Arising from the literature were weaknesses in areas such as the choice of criterion variable in the group process, the nature of the evaluative process, the indirectness of the treatment coupled with an absence of a record of the method of approach, the lack of an outline of the progress of treatment through various stages, and the failure to perform any follow-up of the effects of treatment. The survey of the literature has exposed all these weaknesses.

The studies on delinquency and delinquency proneness suggest that there should be more precise and specific

research to guide action in this field (Conrad, 1965; Powers and Witmer, 1950; Marcus and Conway, 1971; Wilfert, 1971). These studies among others showed that group counselling methods were not systematic, leaders were not trained and the measurement of outcome left much to be desired. It was shown that research in group counselling from 1945-1970 had been largely unscientific and generally inconclusive (Slaikeu, 1973). Therefore, using a specified approach spelled out in a manual, the present study examines the effects on groups of two possible variants of a treatment and compares them with a control, no-treatment group.

Criterion Variables

The criterion variable most suited to a particular treatment is, of necessity, related to the aims of the processes incorporated in the treatment, which, in turn, are based on the particular theory of delinquency postulated by the research worker. For example, it was shown that Rathus (1973) examined assertive behaviour using assertive models and directed practice in order to reduce general fear among experimental group subjects. The aim of this study was to help the subjects to monitor the change in part for themselves. Therefore, the criterion variable was twofold. In one case, the subjects rated themselves on a six point scale. In the other case, external ratings were made by independent judges. Another example was provided by Sarason and Ganzer (1969) who attempted to replace inadequate modelling experiences by adequate social models in the case of a group of institutionalized delinquents. Using various forms of modelling, role playing and rehearsal techniques,

the researchers hoped to affect the way the delinquents saw themselves. The criterion variable in this study was self-measure. The semantic differential and a self-description inventory were used.

There are other instances from the survey illustrating the relationship of aims and purposes to the criterion variable and the theoretical stance taken. Significant among them are the studies noted by Goldberg (1973), Goldfried et al (1974) and Twentyman and McFall (1975). It was noted that Goldberg (1973) demonstrated that vocational and social adjustment could be maximized in working with youths of two juvenile courts. Directive counselling was found to be more effective than non-directive counselling with the more verbal delinquent. The criterion of adjustment was rehabilitation and placement over time. The project was successful in that two-thirds of the boys were either placed in active rehabilitation or had gained full-time positions while only one-third of them was not affected. In the study by Goldfried , Decenteceo and Weinberg (1974), it was shown that the use of rational emotive therapy along with systematic desensitization was made for the self-control of anxiety. In this study the criterion was the reduction of anxiety provoking behaviour which led to the consequent relearning of confidence and rational behaviour. A questionnaire was used before and after treatment to gain data. The study by Twentyman and McFall (1975) further illustrated the importance of a clear theoretical structure and its relationship to the criterion variable in a study showing that modelling along with behaviour rehearsal and

coaching could be used to improve social skills. This study was aimed at eliminating shyness in the ability of college subjects to interact with women. The criterion was reduced anxiety in social situations with women, and this led to ease and skilfulness in the interaction with them. In this study the measures were comprehensive since a physiological check, a self report scale, an external rating, and a personal rating were all used.

The particular treatment process under scrutiny in this study is modelling. During the period when a group is undergoing this type of treatment, each individual is being reinforced for imitating the model as well as for giving reinforcement to another member for attempting to utilise positive factors in terms of self realization or in terms of the ability to come to an understanding of the other person's views, attitudes, or actions. For this type of treatment, the individual is given exercises to help him to recognize positive factors in terms of self and in dealings with others; then training in using the new learnings take place, followed by further practice in basic methods of reinforcement.

The orientation of the modelling process is clearly towards modification of self concept likely to be beneficial to the individual in reducing his propensity to be delinquent and also improving his relationships with others. Hence in this study criterion variables were chosen to measure these two constructs; several methods of measuring self concept were used in the course of the seven trials which are to be described later, and the Berger Scale of "acceptance of

others" was the main instrument for the second main criterion variable.

Pretest Measurements

Too many studies on group counselling yielded inconclusive results, largely as a consequence of their failure to consider differences between groups before treatment began which alone could account for criterion performances which the authors attributed to treatment. This has been one of the strongest sources of criticism of group counselling research. Definite criticisms were stated by Mahler (1971) who showed that the length and number of sessions posed a problem as well as the lack of pre test variables and the use of global adjustments as an outcome variable have been limiting. Then again, Dinkmeyer and Muro (1971) showed that group research has been inconclusive for a number of reasons including group composition and differences, evaluation methods and a differentiation of process and outcome studies. Further criticisms were expressed by Slaikeu (1973) who studied group counselling research undertaken from 1945 to 1970. He found that many studies did not show consistency in goals of treatment and were vague in their definition of the dependent and independent variables. He also found that there was a lack of rationale for the use of testing instruments and a failure to pinpoint what constituted success in treatment. Differences between groups before treatment could not clearly be ascertained. Slaikeu, therefore, concluded that it was not possible to assert that group counselling research was effective.

Some studies which did attempt to take account of initial group differences which could be confounded with treatment effects used various personality scales appropriate for the particular situation. For example, Hedquist and Weinhold (1970) made initial measurements using the S-R Inventory of Anxiousness and the A-S Scale of the Guilford-Zimmerman Temperament Survey in an experiment aimed at increasing the frequency of positive behaviours of highly anxious and socially unassertive college students, and White (1970) used the Rosenweig Picture-Frustration Study and the "over-controlled hostility" scale (O-H) of the M.M.P.I. to determine whether high or low O-H subjects preferred to imitate verbally aggressive or non-aggressive models. Other studies did use self report questionnaires along with an initial measure to obtain baseline data. One such example is the study by Hersen, Eisler and Miller (1973) which showed that practice and instructions along with modelling could have an effect on assertive behaviour. They used a behavioural assertiveness test as a pre and post measure to assess the qualities they were aiming at changing in a direct way. This behavioural assertive test was a rating scale using external judges to rate seven verbal and non-verbal aspects of assertiveness. The self report measure of assertiveness was made using the scale noted above.

An initial measure is useful only if it is likely to correlate with the outcome variable. In the study by Hedquist and Weinhold (1970) this did occur as the treatment groups yielded a greater number of assertive responses than the controls. In the study by White (1970) this

characteristic was also upheld since it was shown that, regardless of the O-H condition, the clients tended to imitate an aggressive model. Baseline data of the same type as the criterion measure are often collected with the objective of analysing gain scores. In the present study the purpose of collecting such data has been regarded as being essentially similar to that of collecting information about correlated initial variables, and the method of allowing for its effect on criterion measures will be discussed in detail in context later.

General Considerations in Selecting Types of Measurement

There has been some difference of opinion on the question of the usage of external ratings as compared with self ratings for evaluation of the results of this type of study. Rathus (1973) used external ratings, and favoured their use because they served as an objective check on the self ratings he obtained in his study as well as were employed by more than one judge, thereby increasing the reliability of the results of the research. On the other hand, Hersen et al (1973) used self ratings, and some of the reasons why these were considered relevant by many research workers are reviewed in the chapters on Delinquency (Chapter 2), Reinforcement Group Counselling (Chapter 4) and Modelling and Social Reinforcers (Chapter 5). For example, Truax (1971) attempted to show that the greater the concentration on a client's anxiety source, the more will be the success of the outcome of group counselling. He used a five point Likert scale for client's anxiety source, and this was given as a self measure before and after treatment. Another

example is that of Hansen (1972) who used models in reinforcement group counselling to increase the social acceptance of low sociometric subjects. He used pre, post and follow-up measures of self and other ratings in the form of sociometric tests. In his work and research on group counselling using modelling, Rose (1972) reported the use of both internal and external ratings as acceptable forms of evaluation.

On the whole, very little application is made of self-ratings in reported research on group counselling in institutions. This may possibly be due to a belief on the part of the experimenter that such ratings will not be valid, possibly even faked by the testees. This fear exists throughout most attempts to measure aspects of personality by paper and pencil tests and accounts for the inclusion of "lie" scales in the Eysenck tests in the present study and elaborate precautions in the M.M.P.I. in the form of sub-scale scores, which may result in the rejection of information from certain individuals whose answers are deemed not to be valid in the light of these supplementary scores. However, in a situation such as the research to be described, from a point of view of the theoretical stance self-ratings are essential measures of progress of an individual. Moreover, the essence of the aims of the treatment are that the client must develop integrity, and if the experimenter feels he cannot trust a client to answer truthfully his questions about how he rates himself at the end of the treatment process, it could be argued that both parties have been wasting their time.

Probably, there is much in favour of using both self ratings and external ratings as relationships between them and also discrepancies can throw light on the effect the treatment has had on particular individuals.

In selecting scales such as personality inventory measurements it is necessary to scan the literature and manuals to ascertain whether they have been used with delinquents in previous studies, and to take note of the validity and reliability claimed for such populations. There is acknowledged to be a strong cultural influence on performance in personality inventories, for example, Spiers (1976; Unpublished M. Phil. Thesis, University of London Institute of Education) concluded that Cattell's 16 P.F. test was completely unreliable for Indian populations. In Chapter 8, detailed information about previous use of scales is discussed after the statement of hypotheses.

General Considerations in Choosing a Design in this Particular Study

In the first place, several replications were made of a basically similar design in different types of institutions.

In each case, three groups were subjected to different conditions. Two of these had "treatments" which were variants on group counselling procedures, the first was "modelling" based on procedures spelt out in a manual, the second "social reinforcement" also to be described in detail, the third was merely a "control" group which had no special treatment. The criterion variable in each case was a measurement of a positive view of self and a measurement of acceptance of others. The method of measurement of

these was varied in some of the seven replications, and in most cases several measurements of the criterion were made. Care was taken to obtain initial baseline information which was made use of in the ultimate analysis. A follow-up analysis to monitor the maintenance of treatment effects was specified.

CHAPTER 8

THE HYPOTHESES

The aims of the "modelling" treatment discussed in the previous chapter have been accompanied by a brief account of the process followed during the sessions in which it is used. The conduct of a typical "social reinforcement" session would be as follows: there were no models and the method of giving social reinforcement was taught to all group members. Social reinforcers were given verbally in the form of approval or disagreement and positive growth in terms of self and other dimensions was recognized. Each member had the opportunity and was encouraged to give or receive social reinforcement. The similarities between the two methods are in terms of the structure, organization and content of the group process, but there is a fundamental difference insofar as the modelling condition uses models and social reinforcement condition does without them, thus providing for a subtle difference in the manner in which reinforcement takes place in each group. A comparison of the methods is set out in full in Table 2 of Chapter 9.

Henceforward in the description of the design "X" will refer to the experimental condition in which modelling reinforcement was used, and "Y" to the experimental condition in which systematic social reinforcement was given in an operant manner. The verbal counselling procedure employed was based in Albert Ellis' model of Rational Emotive Therapy, which was applied equally in the two treatment conditions. Both experimental conditions are to be compared with groups

operating under the control conditions of "no specified treatment", which will be referred to as Condition C, in each of seven trials, the first two of which were regarded as pilot experiments.

Hypotheses embodying these general objectives will now be stated in the form in which they will be considered in the statistical analysis of the results. The hypotheses apply to each trial of the experiment in the first place, but in conclusion an evaluation of the total evidence for all seven trials will be made.

A chart of the outcome variables used in the seven trials shows the measurement type of scale and the trial in which the particular measurement was used. Full details of these measures and why they were chosen are given in Chapter 9.

Figure 1

Chart showing outcome variables used in various parts of the study

Dimension	Measurement	Scale Type	Trial In Which Used
SELF			
Semantic Differential	Full Scale	Interval	All
Berger Scale	Self Acceptance	Interval	All
Tennessee Scale	Self Concept	Interval	I, II, III
Piers Harris Scale	Self Concept	Interval	IV, V
SOCIAL			
Berger Scale	Acceptance of Others	Interval	All
External Ratings (Post)	Observable Behaviour	Nominal	All
External Ratings (Later)	Observable Behaviour	Nominal	I-V
Group Analysis Scale	Self Rating	Interval	IV, V
	"Others" Rating	Interval	IV, V
	Group Growth Rating	Interval	IV, V

Initial, Control Variables

All the above outcome variables can be used either as criterion measures or, when measured initially, as control variables. In addition, in two early trials, the Eysenck Junior Personality Inventory was used in this way, but for reasons to be discussed later, it was discarded in later trials.

For every variable to be regarded as a criterion variable the following form of hypothesis was tested:

Interval Scales

Null Hypothesis A

Supposing that it was possible to apply treatment X to all delinquents of the type considered in this study, and the mean of this "population" in any particular criterion measure is U_X. Similarly, if treatment Y were applied to a similar population, suppose the mean is U_Y, and if a population untreated as in the control condition, suppose the mean is U_C. Then the null hypothesis, H_o, states

$$U_X = U_Y = U_C$$

which means that the treatments have had no effect on mean criterion scores of the populations concerned, for the particular measure under consideration.

Research Hypothesis A (Positive Form)

The general form is as follows:

$$U_X \neq U_Y \neq U_C$$

The specific forms are as follows:

(a) $U_X > U_C$. The mean of treatment X will exceed that of treatment C on the populations concerned, for the particular criterion measure considered.

(b) $U_Y > U_C$. The mean of treatment Y will exceed that of treatment C on the populations concerned, for the particular criterion measure considered.

(c) $U_X > U_Y$. The mean of treatment X will exceed that of treatment Y on the populations concerned, for the particular criterion measure considered.

Nominal Scales

Null Hypothesis B

(a) There will be no change during treatment of category ratings following treatment X.

(b) There will be no change during treatment of category ratings following treatment Y.

(c) There will be no change during treatment of category ratings following treatment C.

Research Hypothesis B

(a) There will be a positive change in category ratings for individuals exposed to treatment X.

(b) There will be a positive change in category ratings for individuals exposed to treatment Y.

(Note: These hypotheses will apply to immediate test ratings compared with pre test ratings and also to ratings one month later than treatment terminates compared with initial ratings).

Self-Rating Scales

Null Hypothesis C

This applies only to the Group Analysis Scale, Trials IV and V only, and reads as follows: The treatments will have no effect on mean criterion scores of populations treated by Method X and populations treated by Method Y, as for example, $U_X = U_Y$.

Research Hypothesis C

The mean criterion score of treatment X will exceed the mean criterion score of treatment Y in the populations concerned, as for example $U_X > U_Y$.

CHAPTER 9

METHOD OF STUDY

General Procedure

In order to test the hypotheses, a careful study of the approach and strategy had to be made. A natural setting had to be maintained so that it was possible to claim that the results of the particular groups studied were typical of the populations in terms of which the hypotheses were stated, and external validity, meaning that results obtained would almost certainly be replicated if reinforcement group counselling were used in a school system or social institution, could be claimed. Research is only valuable if it is applicable, and research in the social sciences with human resources requires to be undertaken in a naturalistic setting in consequence, wherever possible.

The sequence of the seven trials undertaken altogether consisted of two, regarded as pilots, carried out in London, England, and five in New Brunswick, Canada. In this chapter a description of the samples is given, together with the necessary technical data concerning the test instruments enumerated in the previous chapter. An operational account of the experimental and control procedures* is presented, including a brief outline of the principles of the reinforcement group counselling method. The general statistical procedures are also considered.

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* For the control group normal classes was the form of "treatment". Except for the comprehensive, it can be assumed that they experienced "helping relationships" as part of the modern outlook in institutions and schools considered.

Experimental Design

In both pilot and main experiments there were many common features. Basically the design can be described as a pre-test, post-test, control group type in all cases, in which the pre-test data are to be treated as "control variable" information, the effect of which will be allowed for in the statistical analysis which tests the hypotheses.

Preparations for allocations of pupils into groups, briefing of the educational authorities of the school and testing were made in advance. Three groups of pupils were needed for each trial, and every pupil likely to take part was interviewed by the researcher in order to gain their cooperation beforehand. In the two London studies the researcher also tested potential experimental subjects before the experiment began; in the five New Brunswick experiments, the researcher obtained the cooperation of Master of Education students for carrying out the pre-testing, leaving him free to interview the thirty subjects in each of the five trials individually. During the interviews, it was made clear that subjects had to commit themselves to take part in the experimental group sessions for the whole eight week period if they were allocated to them, and only those willing to spend the time were included in any of the groups.

As part of the basic information concerning participants information about their age and academic standing was obtained from the school authorities. In the early trials the Eysenck Maudsley Junior Personality Inventory was also administered to obtain further pre-test data, to be used as control variable information, in a manner to be described later. Other measures similar or identical with the criterion measures to be used

at the end of the treatment as post-test measures formed the pre-test series. In the pilot studies in London only one of these scales was used as a pre-test post-test measure. This was the Berger Scale of expressed acceptance of self and expressed acceptance of others. In other trials the Semantic Differential scale and the Tennessee Self-Concept Scale were also used, together with the Piers-Harris Children's Self-Concept Scale.

At the end of the experiment the two experimental groups and the control group were tested with the same variables. The control group had no contact with the experimenter during the course of the experiment. Follow-up data were also obtained on the same variables one month following the termination of the group sessions.

To avoid confounding a teacher variable with the results of the treatments, the researcher himself conducted all the group sessions.

Experimental and Control Groups

The two experimental groups met at different times and were given different treatments. Experimental group X was given the treatment of modelling reinforcement and followed the Rational Emotive Therapy approach. Two live models were selected by the group members and researcher and ratified by the teachers. Using these models and reinforcement in terms of approval for appropriate behaviour, the session followed the principles enunciated in the manual.

The models were selected on the principles presented in Chapter 5, by major proponents (Bandura, 1969, 1971;

Rose, 1972; Krumboltz and Thoresen, 1969). Models were held in respect and esteem by staff and students and had demonstrated that they were interested in attempting to help with difficulties. The models were selected from among peers and were asked to be guides and coordinators for the group. They possessed a higher level of confidence and esteem among their peers and colleagues than those who were not chosen and took part in the sessions throughout.

Experimental group Y was given the treatment of social reinforcement and was guided by the rational emotive counselling approach. This group had no models who acted as intermediaries and the treatment was less structured than the former group. Social reinforcement was given verbally in the form of approval or disagreement.

In both groups relevant material from the newspaper, films, theatre, sports, and T.V. was introduced to stimulate discussion. The discussions were semi-structured to fit into the topic for the session or a topic of immediate interest. These discussions were directed towards the individual's opinions and personal experiences and his experiences with other people. The researcher encouraged the members to express ideas freely and vent feelings openly as far as they could comfortably do so. Ideas, insights, beliefs, opinions, and views relevant to positive social behaviours were reinforced.

The differences between the two approaches are marked. The model reinforcement group used the live models as intervening variables in which the models were reinforced for insights and this acted as a stimulant for others

to follow and to gain reinforcement as well. It helped to break down the barrier that adolescents build between themselves and their adult leaders. This process was not followed in the social reinforcement group where there were no overt intermediaries. In both groups a definite structure for learning new modes and approaches was present. Both groups were reinforced by the leader for making contributions.

The Sample

The 210 subjects involved in the experiment were drawn from seven schools, two in London and five in New Brunswick, Canada. The reason for attempting the experiment in these two countries is not necessarily for comparative purposes. It is the researcher's belief that much is needed in the way of counselling from an individual and group point of view in relation to behaviour problems, especially when it is attempted at an early stage. Secondly, the researcher is interested in continuing research started with behaviour problems in high school and in the training school for boys for the Province of New Brunswick. It should be noted that comparative analyses may be useful when they are reciprocally beneficial to all parties concerned.

Each application of the experiment is a trial. Thirty subjects are used in any one trial of the experiment in a school. Ten subjects are each assigned to any one group (Modelling, Social Reinforcement, Control).

The first trial (Table 1) of the experiment was made at an Approved School for Maladjusted Boys in London. This acted as a first pilot study. Because of the level of

maladjustment and the totally voluntary basis of research, testing had to be limited only to two before and after measures. A number of points suggesting adjustments in future studies was developed as a result of this preliminary trial of the experiment (Chapter 11).

The second pilot study was made at a comprehensive school in northern London. This school, though not a special school, does have pupils showing a number of behaviour problems that are serious in nature. The particular subjects used from this school were all from disrupted homes as in the case of those housed in the special school for the maladjusted, and in various ways they displayed classic qualities of delinquency-proneness. This was appropriate since one aim of the research was to seek to prevent behaviour problem cases from becoming crises.

The first trial of the main experiment took place at the Youth Training Centre in Fredericton, capital of New Brunswick. This is a centre for detention of delinquent youths who, like the students from the Maladjusted School noted earlier, are sent by the courts or recommended by the social services for a period of training with surveillance.

The second trial of the experiment was undertaken at a Junior High school in Saint John, New Brunswick. Behaviour problem youths similar to those from the previous high school were selected. These students, if left without some form of guidance, would probably progress towards delinquency, as they showed the characteristics of delinquency-proneness referred to in Chapter 2.

Table 1

Chart Showing the Number of Trials of the Study with Schools and Dates

Trials	Schools	Dates
Pilot I	Institutional School, Approved , London	Nov 1973-Jan 1974
Pilot 2	Ordinary Comprehensive, London	Mar 1974-May 1974
Trial I	Youth Training Centre, Kingsclear, N.B.	Sept-Nov 1974
Trial II	Rothesay J.H.S., Saint John, N.B.	Dec 1974-Mar 1975
Trial III	Youth Training Centre, Kingsclear, N.B.	Sept-Nov 1975
Trial IV	Youth Training Centre, Kingsclear, N.B.	Jan-Mar 1976
Trial V	George St. J.H.S., Fredericton, N.B.	April-June 1976

The third trial of the main experiment took place at the Youth Training Centre. The fourth trial was held again at the Youth Training Centre. The fifth trial was held at a Junior High school in Fredericton, N.B.

The ages of the boys in all seven samples ranged from 13 to 16 with an average of 14½ years. The three samples were arranged to include approximately equal numbers of boys with each type of emotional problem, and approximately the same average age and average academic standing.* This arrangement had the advantage that these factors were not confounded with the "treatments"; apart from this slight departure from randomness, available subjects were allocated

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* This was taken as a measure of functional intelligence.

randomly to treatments. The statistical consequences of the possible equalising of groups by the procedures described will be considered in due course.

Observation of the Counselling Process

One of the benefits to this study was the opportunity it presented to staff members of the individual schools and graduate students to see the approach in operation. This allowed more professionals other than the researcher to gain experience in the method. It allowed also for their development on a personal level. In addition, it permitted external validation of the approach in that the observers were given a shorter manual and asked to comment upon the procedure adopted.

It must be pointed out that some observers acted as models as well, and were invited to participate in the group development. They were, therefore, participant observers. In the case of the Experimental group X involving modelling, external models were involved once each week. This, of course, is in addition to the models selected by the groups themselves in conjunction with teachers. In the case of the Social reinforcement group no models were selected from the group and no models were allowed from any external sources. People who came in as observers were not permitted to take any part whatsoever. The researcher, who acted as leader of the group, had to act also as a member of the group. In all the Social Reinforcement groups privacy was carefully maintained.

The nature of the group counselling sessions appeared

appropriate to the observers and where comments were made, they were constructive and led to minor improvements in the overall treatment. Observers commented on the effectiveness of the activities which involved thinking, movement, and interaction, and which led to almost total involvement, largely positive action and a sense of satisfaction at the end of the session. A detailed chart showing the external models and observers is included in Appendix B. A brief summary of the chart is shown as follows:

Figure 2

Chart Showing the Numbers of Models and Observers in all Trials of the Experiment

School	No. of External Models	No. of Group Models	No. of Observers
1. Approved School, S. London	4	2	5
2. Comprehensive, N. London	3	3	4
3. Kingsclear Training Centre, Kingsclear, N.B.			
(a) Trial I	6	2	10
(b) Trial III	6	2	11
(c) Trial IV	8	2	12
4. Rothesay J.H.S., Saint John, N.B.	4	2	6
5. George St. J.H.S., Fredericton, N.B.	4	2	6
TOTAL	35	14	54
AVERAGE PER TRIAL	5	2	7

Sources of Data (Instruments and Keys in Appendices)

The Junior E.P.I. was published by Dr. Sybil B.G. Eysenck in 1964. It was designed to measure two major personality variables of neuroticism or emotionality, and extraversion/introversion in children. It was developed from the Maudsley Personality Inventory (Eysenck, 1959) and the Eysenck Personality Inventory (Eysenck and Eysenck, 1964) for adults.

The scale does not make the assumption that people will either be introvert or extrovert, and stable or unstable. It suggests that people can be found along the continuum between these extremes, and that there is ample evidence to show that these distributions are somewhat normal for the two dimensions.

The inventory contains 60 suitable items. Twenty-four of these items measure Extraversion, twenty-four measure neuroticism, and the remaining twelve constitute a lie scale to test for faking.

The split half reliabilities for the scales with correction for length by the Spearman-Brown formula are given for every age group beginning from age 7 to age 16. The reliabilities range from .581 to .864. The test-retest reliabilities are given for various ages from 7 to 16 and range from .411 to .815. With respect to its validity, little is known about the test in statistical terms. Face and construct validity seem to have been satisfactory in the early stages of its use.

The Junior E.P.I. is used in this study since it shows

a relationship with certain types of delinquency. There are indications from research of the link between extravertedness and criminal behaviour (Eysenck, 1970). In this study it is used as a pre-test covariate in the early trials of the experiment.

The Semantic Differential

The semantic differential is a flexible and easy-to-score form of measurement technique. It is developed for assessing connotative meaning.

The semantic differential was developed by Osgood, Suci, and Tannenbaum (1957) by using the factor weights as indicators of the appropriate scales. The present study utilises 24 bipolar adjectives representing the concept "the way I see myself", or "the way I see the individual student". Positive and negative poles were alternated and the scale was scored by assigning a score of 7 to the extreme positive response and a score of 1 to the extreme negative response. An overall score was obtained by summing the scores for the individual items. The highest possible score is 168, which indicates a very strong positive outlook and the lowest possible score is 24 which indicates a very negative outlook. An average score is 96 which indicates a non-committal outlook, one that is balanced between the two extremes.

The test yields scores on four dimensions, namely, the evaluative, potency, activity, and total factors. In some trials of the experiment the semantic differential was to be used as a pre-measure, a post-measure, and an "after"

measure for both the experimental groups and the control group.

The Berger Scale

This scale was developed by E.M. Berger (1952) to measure expressed acceptance of self and expressed acceptance of others. It has been used among psychiatric patients in hospitals in Ontario and has proved effective (Coons and McEachern, 1967; Coons, McEachern and Annis, 1970; Coons, McEachern and Annis, 1973).

This scale is constructed around nine elements of definition of the self-acceptance person and seven elements of definition of the person who displays acceptance of others. Form A which is used as a pre-test measure is composed of 18 self-accepting (S-A) items and 14 acceptance-of-others (A-O) items. The scale is, therefore, composed of 32 items, every two items of which represent one of the sixteen elements of definition. Form B which incorporates the other 32 items is used as a post-test measure and a follow-up measure.

The scale is a five point rating measure, ranging from 1 (not true of myself) to 5 (true of myself). The items are constructed so that the accepting responses are sometimes represented by 5 and at other times by 1. Whole test reliabilities estimated using the split-half method and the Spearman-Brown formula with a variety of groups ranged from 0.75 to 0.89 for acceptance-of-self, and from 0.78 to 0.88 for acceptance-of-others. Two individual studies yielded concurrent validities by the Pearson product-

moment correlation from 0.73 to 0.90. Correlations between acceptance-of-self and acceptance-of-others ranged from 0.36 to 0.70 for different groups of subjects.

An investigation into the relationships between the self-concept and feelings directed towards others (Stock, 1948) was made under the influence of Carl R. Rogers at the University of Chicago. Stock confirmed a finding of Sheerer (1949) that there was a definite and substantial relationship between attitudes of acceptance and respect for the self and those of respect and acceptance for others. Stock established that an individual who holds negative feelings toward himself tends to develop negative attitudes toward people in general. It was also found that feelings towards individuals in a social relationship were more highly correlated with self attitudes than were feelings in family and impersonal relationships. It was also shown that there was a close relationship between self attitudes and the emotions directed toward other people.

Since the work of the precursors in this field was not fully generalizable, E.M. Berger attempted further research in order to develop the concepts for use in educational and clinical work. Berger (1952) then worked at the development of a group instrument for the measurement of expressed self-acceptance and expressed acceptance of others, as well as the determination of the relationship between these two variables in a number of situations, using the constructed instruments. He established definite

support for a positive correlation between acceptance of self and acceptance of others.

Tennessee Self Concept Scale (TSCS)

The instrument is a self concept scale which is basically simple for the subject, widely applicable, and multi-dimensional, but lengthy. It is useful for a variety of purposes including counselling, clinical assessment and diagnosis, research in behavioural science, and personnel selection.

The scale consists of 100 items scored on a five point scale. These are self-descriptive statements which the subject uses to portray his own perception of himself. The scale can be done individually or in groups, and can be used with subjects from the age of 12. The counselling form is quicker to administer as it takes approximately 20 minutes, and easier to score since it deals with fewer variables. It is appropriate for self-interpretation and feedback to the subjects. This is the form that will be used in the present study, since the other form, the clinical and research form, is rather complex in terms of scoring, analysis, and interpretation, and contains a large number of subtest scores which are not appropriate for purposes of this research.

The author of the Scale (Fitts, 1965) began the construction of the instrument in 1955 for the Department of Mental Health of the State of Tennessee. As a result of research, this scale was developed and tried out on a large number of subjects including some in Canada. Since

the test is simply expressed and depends upon personal views it does not appear to suffer from cultural problems as such. Interpretation is not made from the norms supplied; it is based on the population in this study.

The standardization group was composed from 626 subjects from various parts of the country ranging in ages from 12 to 68. The average reliability coefficient was 0.88 for most of the 45 subtests. Validity procedures were of four kinds, namely, content validity, discrimination between groups, correlation with other personality measures, and personality changes under different conditions. A plethora of data on validity are revealed in the manual to show that there is substantial evidence for sound validity. This scale is useful since it is accompanied by a large amount of research evidence.

There are relevant studies using the T.S.C.S. with delinquents. It should be noted that with this scale, it is found that evidence points to the fact that a person's self concepts change as a result of significant experiences in their lives. The scale, it has been stated, reflects these changes in predicted ways, a factor which supports the strength of validity of the instrument.

The Piers-Harris Children's Self Concept Scale (P.S.C.S.)

The Piers-Harris Self Concept Scale was developed between 1964 and 1967 by Ellen V. Piers and published by Counsellor Recordings and Tests of Nashville, Tennessee. It is subtitled "The Way I Feel About Myself". It is a self report instrument constructed for children over a wide

age range and takes between 15 and 20 minutes to complete. The instrument was used in the final two trials of the experiment as it is verbally simpler than the Tennessee Self Concept Scale and does not put the subject who has reading problems at a disadvantage. It requires a reading knowledge at approximately the third grade level.

The P.S.C.S. was developed to reflect the concerns that children have about themselves. The items are presented as simple declarative statements. Half of the pool of items are positive and the rest are negative. Twelve of the statements are lie questions in order to see whether replies are valid.

Relevant research information about the test is as follows: after a number of pilot studies and analyses a scale of 95 items was developed. The application of the Chi Square test was made for each item to determine whether there was a significant discrimination between the high and low groups at the .05 level or better. Finally, a scale of 80 items was produced.

Two forms of reliability on the 95 item test were reported, namely, internal consistency and stability. For internal consistency, the Kuder-Richardson Formula 21 revealed coefficients ranging from .78 to .93. This was cross-checked by the use of the Spearman-Brown odd-even formula with half of the Grades 6 and 10 samples revealing coefficients of .90 and .87 respectively. In terms of stability, half of the sample was retested four months later with the resultant coefficients of .71 and .72. This was

regarded as satisfactory for an experimental personality instrument in so long a time span. The 80 item scale was given to 244 fifth grade students over a two-month and a four-month period. The test-retest coefficient of .77 was higher.

The validity of the P.S.C.S. has been of three types: content validity, concurrent validity and construct validity. Content validity was built into the scale in an attempt to define the universe of areas to be measured from reported qualities by children regarding their likes and dislikes. A factor-analysis corroborated the broad areas around which the scale was constructed. Concurrent validity with another self concept scale (Lipsitt, 1958) revealed a correlation of .68 from a sample of 98 special education students with ages ranging from 12 to 16 years. Comparison with the S.R.A. Junior Inventory for 97 children at the Junior High School level revealed a correlation of -.64. Construct validity was found by a relationship of the subject's rating on the scale with the ratings of significant others. It was felt that this was an improper approach as the individual's rating of himself might not correspond to an external rating which could be a measure of typical behaviour. Therefore, this is usually low. Another approach to construct validity was to predict the direction and degree of the particular sub-group in relation to the normal population. It was found that with 88 adolescent institutionalized retarded

females, with a mean age of 16.8 years and a mean IQ of 70, the score was significantly lower than either normals with the same chronological age or normals with the same mental age.

Norms are based on 1183 school children from Grade 4 to Grade 12. As there are no established sex differences and grade differences, the scores are pooled for normative considerations. The scores could be converted into percentiles or stanines. Out of 80 items, the normative sample scored a mean of 51.84 and a standard deviation of 13.87.

The scale was designed primarily for research purposes. To this end it is recommended that in using the instrument change may not emerge after a single laboratory event. Longer studies are encouraged. It was also believed that the scale was useful in clinical and counselling settings as well as in the classroom as a means of identifying children who are in need of psychological help.

A multiple-factor analysis technique was applied to a total sample of 457. A principal-components analysis with rotation by means of a varimax method (after Harman, 1960) isolated ten factors. The factors accounted for 42 percent of the variance, but only six factors were large enough for meaningful interpretation. The six factors are as follows:

I Behaviour

II Intellectual and Social Status

III Physical Appearance and Attributes

IV Anxiety

V Popularity

VI Happiness and Satisfaction

For purposes of the present study, a combination was made of the factors to yield a total of four sub-test scores. These sub-test areas are as follows:

Factors I and IV - Behaviour/Anxiety

Factors II and V - Intellectual and Social Status/ Popularity

Factors III and VI - Physical Appearance and Attributes/Happiness and Satisfaction

Full Scale - Total Score on the P.S.C.S.

Group Analysis Scale of Self and Others

This is a rating scale designed by the researcher to obtain a spontaneous measure of the feeling of the client about himself, his relations with others and his contributions at the end of a session of counselling. It was designed to deduce the degree of satisfaction with self, the group and the situation just as the individual participant sensed it.

The rating was designed to be simple and quick. It was meant to gain a reaction that is genuine and which is not faked in a favourable light for purposes of social

desirability.

In order to devise the scale, studies were made of structured experiences in human relations training (Pfeiffer and Jones, 1973-1977). Concepts of group skills and group growth involved in interpersonal relations were used to structure the twelve stimulus statements (Stanford and Roark, 1974; Johnson and Johnson, 1972 and 1975; Saulnier and Simard, 1973; Krumboltz and Thoresen, 1969).

The scale contains three sections of four stimulus statements each. It is based on a nine point rating continuum so that the judgements could be discriminating and there would be scope for improvement. Three sub-scores are available and an overall score may also be obtained. In a trial of the scale on a university sample the results were readily interpretable. The scale was simple and the individual was able to verify, with other members of the group, his progress in terms of the way it was perceived by others. The scale worked on a very significant principle which maintains that if the individual wants to change in terms of "view of self" and "view of others", it must be a personal change and this personal change can only be properly evaluated by the individual himself. The mere fact that the individual must monitor his own behaviour is a part of the learning process that reinforcement group counselling perpetuates. It is for that reason primarily that a rating scale of this nature, having qualities of a criterion-referenced instrument, was developed. Validity and reliability cannot, therefore, be quantitative; rather, they are qualitative measures in this case. The results on this variable are expected to show

strong correspondence with most of the other standardized instruments.

Support for the selection and use of testing instruments

The Junior Eysenck Personality Inventory

The Junior E.P.I. was chosen in the present research, as was noted before, since it has been used fairly widely among delinquent as well as normal samples. It was based on strong personality theory and has been developed to entail two scales, introversion and extraversion (Eysenck, 1964).

Research using the J.E.P.I. with delinquents showed that it possesses the capacity to differentiate delinquents along certain lines (Hindelang, 1971). While some relationships do not hold, the one between extraversion and engagement in illegal behaviour was supported by research.

The J.E.P.I. was used in order to provide two scores on the delinquent or delinquency-prone. The third score obtained from the lie scale was used as a check as will be shown later. In some groups the results of the J.E.P.I. were used as pre-scores, and treated as covariates in the analysis of the data.

Another factor in favour of the inventory was its use for purposes of ascertaining the element of falsehood. Very early in the formation of groups when this test was given, a check on the lie scale was made in order to eliminate any subjects whose lie score was consistently high. Argyle (1961) did point out that the delinquent had a

tendency to fabricate answers to tests. Therefore, the instrument was appropriate to meet the needs of this situation.

The Semantic Differential

In order to provide a variety in measuring instruments on the self and the way the individual sees himself, the semantic differential scales provided a direct approach. The S-D has been used in various studies involving group counselling with delinquents (Fisher, 1969; Masters and Tong, 1968; and Redfering, 1973). In these studies the S-D was easy to administer and it did yield meaningful results.

In the study by Redfering (1973), the S-D was used to obtain the concept, not only of "self", but also of "father", "mother" and "peers". This measure possesses a marked flexibility and ease of understanding, which make it a valuable tool in research involving changes in the way the individual looks at various types of interest or persons perceived.

The data extracted by the S-D are directly related to one of the central themes of the criterion, that of self and the way the self could be positively influenced. The study by Felker (1973) was concerned with goal clarification and used group methods to facilitate interpersonal relationships so as to help the individual to focus upon questions of self in a safe atmosphere. Questions like: "How do I see myself?" and "How do others see me?" were explored. The semantic differential was employed as a testing as well as a teaching tool from stage to stage and was found to be effective. This gave strong support for the use of the S-D in the present study. The instrument was used to assess

the outcome of that which was directly considered in group counselling.

The Berger Scale of Self-Acceptance and Acceptance of Others

This scale was used since it was designed to function as an attitude scale dealing with "self" and with "others". The present study attempted to offer assistance to delinquents who possessed definite problems in these two areas. In this regard the treatment sessions focussed on "self" and "others". Moreover, as the Berger scale was concerned with these two constructs, it was most directly appropriate for use in assessing the before treatment attitudes and the after treatment attitudes.

In the preceeding section, background and technical information were presented. These showed that although the instrument was constructed and used first in Chicago, U.S.A., it was adapted for use in three recent studies in Ontario, Canada, by Coons and collaborators (1967, 1970, 1973). The instrument was used with psychiatric and forensic patients and have shown changes in the variables following the use of different types of treatment. Therefore, as a result of the appropriateness of the construct to be tested and the fact that the scale was used recently in Canada with forensic subjects, it was found to be a definite prospect.

Unlike the semantic differential, the Berger scale provided a measure of the two central constructs involved in the study as well as two forms of the test, one of which could be used as a pre test, the other as a post test. It should be pointed out that the phraseology of some of the

questions left much to be desired. In a prior examination of the test, judges found difficulty in understanding a few questions, and this was supported by reports received from various subjects in most of the trials of the experiments. While there were reservations with the design of some of the questions, the instrument, on the whole, was most appropriate for evaluating that which had to take place in treatment.

The Tennessee Self Concept Scale (TSCS) and the Piers Harris Concept Scale (PSCS)

The present study attempted to tap a global personality measure to ascertain whether it would be able to yield differences in the face of short term treatment. Since change will be gradual, a global measure invariably may not be effective enough to obtain an indication of change. The measures that were closely related to the treatment outcome were the Tennessee Self Concept Scale and the Piers Harris Concept Scale. In the preceeding description, it was shown that both of these tests have been used with a normal population and with delinquents as well. This has been documented in the manuals (Fitts, 1965; Piers, 1967).

In group counselling research there are studies that have used personality tests to ascertain effects of treatment with varying results (Slaikeu, 1973). A number of studies have made attempts to improve this situation in the use of instruments such as the following: Jessness Personality Inventory (Baker and Spielberg, 1970); the Minnesota Counselling Inventory and Constructive Personality Change Index (Truax, 1971); the Q-sort technique of the

measurement of self against an ideal self image (Caplan, 1957), and the S-R Inventory of Anxiousness (Hedquist and Weinhold, 1970; Goldfried et al, 1974). Studies by Lee and Piercy (1974) and Kemp and Lee (1975) used the Tennessee Self Concept Scale in an extended rehabilitation programme for delinquents in Florida. This specific personality instrument suited the purpose to which the particular treatment aimed. The Tennessee and Piers Harris used in the present study were applicable to the purpose of treatment. They dealt with assessment of the self per se and assessment of the self in relation to others. These instruments were unlike the Semantic Differential and Berger Scales in the fact that they obtained responses from statements describing situational ideas in addition to examining the individual on a number of constructs, thereby attempting to obtain a comprehensive picture of the individual's self-concepts.

It should be pointed out that although the TSCS was comprehensive and thorough it did not prove satisfactory with the delinquent population. It was complex and extensive and the reading level gave many respondents difficulty. It is for this reason that a change was made to the Piers Harris Self Concept Scale, which was a thorough one but not as complicated as the Tennessee Scale.

External Ratings

External ratings by significant others (teachers, counsellors) were used to rate subjects in the present study to give positive or negative scale values in terms of the individual's ability to handle situations which involved

the self in relation to others. The basic purpose of treatment was mainly two-fold, to improve self and to improve one's view of others. One way to estimate the view of others was to see how the individual related with others. It was this behaviour that the external judge had to ascertain. This was done in all post and later trials of the experiments.

Some important studies made use of external ratings for judging the importance of school among juveniles. One study using external ratings by Dell (1963) was done in a juvenile court in Belfast. Another study by Bissell (1962) noted that as appraisal was a tenuous process and only tentative, quantitative results would be provided by means of external ratings.

Among others, the studies using modelling lend support for the use of ratings. It was pointed out earlier by Goldstein et al (1973) that, in a study done in Holland, a five-point rating scale for independence-dependence was used by outside raters to show positive effects of independence modelling. The earlier mentioned study by Twentyman and McFall (1975) showed that with an external rating an experimental group using modelling did improve social skills more than the control group. Yet, another study by Edelstein and Eisler (1976) utilised external rating to show improvement in social skills in favour of the experimental group.

Ratings by external judges performed under carefully controlled conditions have merit as shown in the support received from studies cited, as well as from a host of

studies in modelling in which the technique is applied.

Self Ratings

It has been argued in this present study before that self ratings are consistent with the underlying methods of the treatment followed. The support for using self rating can be found in the fact that the practice of self rating results from a certain amount of maturity and self-control, and both of these characteristics are inherent in the treatment process. It seems reasonable, then, that in order to expect qualities of maturity and self-control, one must give opportunity for training these qualities. The self rating, therefore, not only provided a measure of the way the subject saw himself, it provided him with practice in introspection, which could be helpful in thinking about his problems.

There has been strong support in the literature for the use of self ratings. Self evaluation was used to gain an overview of a correctional institution (Mack and Jones, 1962). A self report measure of assertiveness resulting from a modelling treatment was reported by Hersom et al (1973). Rating on a six-point scale of the statement "characteristic" or "not characteristic" of the subject was reported in modelling research by Rathus (1973). In social skills training, Argyle, Trower and Bryant (1974) gained data in favour of the experimental groups by the use of counsellors' opinions (an external rating), self rating, and patients' opinions (both a self and external rating). It was also reported that Hansen (1972) used sociometry as a form of self rating to note changes in social acceptance in favour of the experimental subjects.

The self rating was attempted in this study in order to give the subject the expressed opportunity to show how he thinks he actually feels. It was one of the alternative measures used. In criticism, Conrad (1965), who reported on group counselling research undertaken in California, England and Canada, suggested that paper and pencil tests may never adequately ascertain the real changes in group counselling, and therefore a new form of assessment should be devised.

Recidivism

A number of studies reported success on the basis of the reduction of the rate of recidivism. This measure has its problems as an evaluative factor, not the least of which is the fact that a number of variables may be responsible for causing the individual to return to an institution. Since only some of the trials in the present study involved institutionalized subjects while the other "school" trials did not, then the rate of recidivism could not be used as a measure in all cases. Only in selected cases was this indicator used.

Support from the survey of literature noted a fairly widespread use of recidivism in institutional research and for institutional guidance. Warren (1972) noted a study by Bernstein and Christiansen of Denmark where recidivism was reduced from 58% to 41% as a result of treatment. Warren (1972) again reported the use of recidivism by Clannon and Jew in 1969. Reports by Fenton (1954) on California corrections showed success gained in the reduction in the rates of recidivism among delinquents. And Laulicht (1963)

reported a programme designed to prevent recidivism.

In the present research, the rate of recidivism was examined in selected trials not as a test of the treatment but in order to observe any important trends. It was difficult to ascertain whether there would be any relationship between short-term treatment and recidivism. But as recidivism seemed to be a broader issue involving the whole correctional system, it was not a suitable indicator of effects gained from treatment.

Experimental Treatment (Manual in Appendix A)

General Considerations:

The length of contact for the first three trials was gained through a series of one and a half hour sessions over a period of five weeks, making a total of fifteen hours. Meetings were held twice a week. In addition, two meetings of one hour and a half were used for the initial interview and the pre-testing, and the same procedure was followed for the final and "later" testing. This made a total of six hours for the pre and post meetings. Therefore, twenty-one hours in contact time was spent with each experimental group over a period of seven weeks.

The final two trials were extended to seven weeks. This was done in order that an additional test could be used and minor adjustments in time schedules could be made. Treatment was undertaken in twelve sessions of one hour and a half each, making a total of eighteen hours. With the addition of the pre and post testing and the interviews, the length of contact was equal to twenty-four hours over a period of eight weeks.

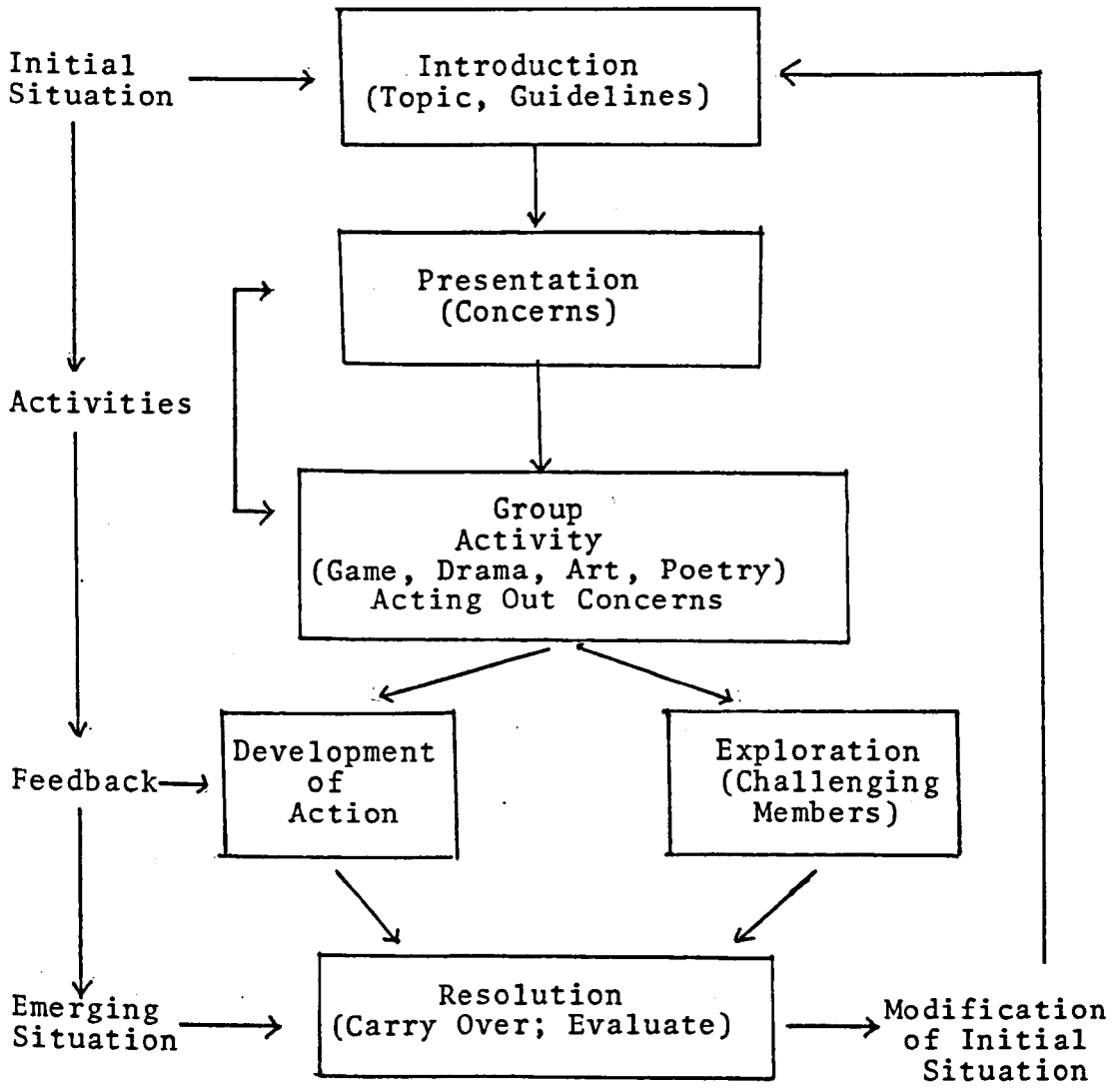
A detailed analysis of the procedures of the group counselling sessions is given in the appendices. A manual developed by the researcher covers suggestions for ten meetings, but each meeting guide can last for more than one meeting, depending upon the depth of discussion and the element of interest. On the other hand, suggestions for more than one meeting could be combined. The manual suggestions are meant to be followed flexibly and not in a rigid manner. This flexibility allows for full expression of creativity on the part of the leader and for greater freedom for originality and elaboration on the part of the group member.

Process

One of the major aims of the process was to encourage and stimulate interaction of self-concept, of ways of dealing with others, and of decision-making in a "self-others" environment. The group process followed a procedure which allowed natural phases to develop. A brief analysis of the pattern is presented as follows:

Figure 3

Showing Development of Group Process



The group process is initiated by the leader who explains the topic and attempts to fit the topic into contemporary or current meanings. Guidelines for the conduct of the meeting are agreed upon at each session until later in the process the members could do this quickly and make adjustments on a consensual basis. With the modelling group, the internal coordinators (models) are brought into the process early and reinforced appropriately so that a standard pattern could be observed and maintained throughout. As well, the external models are introduced at the beginning of the session and reinforced appropriately so that the foundation for vicarious learning or observational learning may be laid. In the case of the social reinforcement group, the reinforcement will be spread throughout so that no one member may emerge as a usurper. With this group the guidelines are established by the leader in conjunction with members, and the leader encourages, very unobtrusively, participation by each member.

The process involves a variety of activities, a number of them resembling meaningful class work. The aim is to help the individuals in the group to strengthen their value system in a learning situation that is conducive to the development of all and which is characterised by genuine respect and dignity of the total person. The process is one of learning as was noted in Chapter One. It is a process that may be termed conjoint learning, that is, development taking place both cognitively and conatively

The process of counselling involves an adaptation of the concept of challenge taken from Ellis' "Rational Emotive

Therapy". It should be noted that elements of Reality Therapy (Glasser, 1965; Glasser 1969; Glasser, 1972, Glasser 1976) are associated with rational therapy as well (Note Appendix D). The approach seeks to deal with concerns not by placing blame on an external source, but by adjusting the "self" to handle the situation. It seeks to discuss concerns rationally, to dispute faulty perceptions of self and others as well as to eliminate the bias effect of "set". It finally allows the subjects to work out more rational ways of living by means of practical assignments and carry over tasks. The rational approach adopts the basic tenets of Reality Therapy in that the individual member and group must take the responsibility for action, and must do so in a non-threatening but realistic manner.

The process involved a number of activities suggested in the manual, plus other appropriate activities brought to the group by individual members. Some of the activities are as follows:

Verbal Communication - Facilitation

Non-verbal Communication

Problem Solving (Situational and Cognitive)

Development of Listening Skills

Meditation

Movement - Creative Drama

Individual Problem Solving for Group Evaluation

Intimacy Exercises

Development of Eye Contact - gaze, proximity, smiling, avoidance

The use of the cassette tape recorder for feedback evaluation

Role playing and Role Reversal

Physical Trust Exercises

Art Therapy

Poetry Therapy

Music Therapy

Exploration of Alternate Behaviour Patterns

Diadic and Triadic Counselling

Progressive Relaxation Exercises

Covert Desensitization Activities

The Rules for Group Conduct

1. Members will work together to assist each other with mutual trust and confidence as well as honesty.

2. Really listen to what the other person in the group has to say.

3. When a member is talking about something, do not change to a different idea until the group seems ready for such a change.

4. Give your opinion or express your feelings when you wish to do so. Sharing your ideas is useful to all of us.

5. When you find that you have had the same feelings and views as the person who is speaking, you would gain great satisfaction. Tell the other person about it. It does help to know that others feel the way you do.

6. In the group members will share many feelings, ideas, and ways of solving problems and concerns. These ideas may be useful to you, but remember that you are the only one who best knows how you feel and what the answer is for you.

7. When we respect and trust each other we can be more helpful to one another. Our agreement is to help one another, not to make fun of a person or his ideas.

8. Members should not meet outside sessions to discuss concerns of the meetings. Do this during the session. If, however, you did break this rule, then it should be reported to the group for action.

9. Observe yourselves as you relate to other friends so as to free yourself and really be open as much as you can. You will find it easy to develop self-awareness as you gain more practice.

Comparison of Methods of Approach

A chart showing the comparison of the modelling reinforcement approach with the social reinforcement approach is shown. With the exception of the use of internal and external models in the former group and varying reinforcement patterns, the two methods follow the same procedure.

Table 2

Showing the Differences Between the Two Experimental Conditions

Activities	Experiment X (Modelling)	Experiment Y (Social Reinforcement)
Assessment	Pre/Post/Later	Same
Introduction	(a) Basic Instructions	(a) Same
	(b) Procedure to involve coordinators from group (Models) and external visitors	(b) No other participants involved in groups; only as observers

Activities	Experiment X (Modelling)	Experiment Y (Social Reinforcement)
Reinforcement	Leader reinforces models from group and external models and supports observational behavior.	Leader uses social reinforcers to increase confidence of all members alike. No one member is recognized more than any other. Members trained in the use of social reinforcers.
Development	Allowing for flexibility.	Same
Group Activity	Basic exercises plus group members' contribution.	Same
Counselling Method	R.E.T. plus Reality Approaches	Same
Selection	Interview and Randomization	Same
Group Resolution	Challenge and follow-up assignment	Same
Individual Counselling	Interviews	Same
Confidentiality	External others involved	No involvement of non-group members.

Dealing With Problems Arising During Sessions

Problems have arisen at some time during the session and must be approached with caution if the group is to survive. In most cases this occurs between two members or among three or four members. It has also been seen to occur in such a way as to polarize members of the group. A consistent approach was decided as a means of resolving the problem so that the progress of the group would not be hampered.

In dealing with the problem or deadlock with a small minority, the leader might appeal to these group members to reconsider the agreement made at the beginning of the session and recognize other members for intervening positively. Sometimes the leader asked the group to retract to the point where the problem began, reverse roles and play it out. According to the specifications, he should seek the support of the rest of the members to show appreciation, not for the aggressiveness displayed, but for the honesty of feelings being expressed. He should reinforce members or the model very highly for their sensitivity in showing empathy for those who expressed feelings openly. But he should ask the group to help those concerned to understand the expressed feelings of the others and do something about control of self in the presence of others. It is during such instances that group counselling can be most effective as a learning device and a growth stimulant.

When the situation is really threatening and somewhat disruptive, then a "time-out" technique is most useful and necessary. In such a case, without reinforcement or the expression of any bias, that is, with a neutral expression, the leader should quietly and unceremoniously accompany the uncooperative member out of the group and meeting place. The other members of the group are then encouraged to work the problem out soberly and to make preparation for re-acceptance of the member or members involved.

In dealing with the polarized group the leader could use the two models to work out the problem with each side separately, and then prepare to meet as a group. With the

aims and motives of the session re-established, the group must examine both sides of the problem with an attempt to foster development of toleration and further understanding of individual and group action. In such a case the leader should see that structure is maintained throughout so that no harm may be unduly committed.

Treatment of the Data (Raw Data for all trials in Appendix N)

Significance

Tests of significance based on the null and alternative hypotheses stated earlier were used. The usual level of significance of which the null hypothesis would be rejected in studies of this kind is .05. However, in dealing with the question of an appropriate level of significance, the power of a statistical test is a consideration which must be taken into account. This is bound up with the issue of Type II errors, which concern the risk of accepting the null hypothesis by default because the evidence is insufficient to justify rejecting it in favour of the research hypothesis. Frequently in such a situation the acceptance of hypotheses of small differences rather than of no differences could equally be justified; this tends to happen more frequently in small sample studies than in large sample studies, especially when the stringency of the test as measured by a low probability at the decision making level is tightened. Labovitz (1973), for example, states:

> The power of a test varies directly with sample size, that is, as N increases where there is a greater probability of correctly rejecting the null hypothesis (in comparison

> to a specific alternative hypothesis). Moreover, the standard error varies inversely with sample size. Consequently, with a large N a small difference is likely to be statistically significant, while with a small N even large differences may not reach the predetermined level. Therefore, small error rates (.01 or .001) should usually accompany large N's and large error rates (.10 or .05) should be used for small N's.

Further thoughts on the significance level were expressed in terms of Type I and Type II errors. One author (Winer, 1962:13) noted that "the frequent use of the .05 and .01 levels of significance is a matter of convention having little scientific or logical basis. When the power of tests is likely to be low under these levels of significance, and when Type I and Type II errors are of approximately equal importance, the .30 and .20 levels of significance may be more appropriate than the .05 and .01 levels."

There is another feature of the design which supports a decision to consider seriously results which are significant at the .10 level, namely, the sampling method of "qualitative matching" which was used in forming the personnel of the three groups which had to be allocated to the treatments. It will be recalled that the groups were arranged so that they were roughly equivalent in academic standing, age, and nature of disturbance. In retrospect, a purist would have insisted on absolute matching into trios of boys equal in these respects, then allocating the trios randomly to the three treatments and analysing as a "randomised blocks" design. However, in remedial institutions or classes, personnel are not available in sufficient numbers

to enable the research worker to match in this way, as there must be some flexibility in the form of being able to allow for rejectees who have no counterparts on the qualities or measures defining the blocks; frequently at least 50% would have to be discarded for this reason. Nevertheless, some account has to be taken of the fact that the groups are more alike than they would have been had the allocation been completely random in the present study.

If groups are not matched person for person but have been arranged to have equal means and standard deviations in an initial measure, for the simpler case of comparing two groups some authors recommend the reduction of the standard error of difference in means of criterion variables by a factor $\sqrt{1 - r^2}$, where r is the correlation between initial (matched) variable and criterion. If the partial matching does affect the criterion variable, therefore, but r is unknown, the effect will be to test more stringently than necessary if the formula for the standard error of random samples (which will be somewhat higher than it should be) is used instead of the modified standard error quoted above.* It could be argued that a reasonable procedure in the circumstances of this study is to treat the samples as random but to use a slightly flexible attitude about the level of probability the result represents, in which again we might conclude that a result ostensibly testing at the 10% level might be testing at a lower level, in the circumstances of sampling described.

In the present study the aim is to report generally at the .05 level and to take as satisfactory that up to the

* Despite the apparent need to do a one-tailed test suggested by the parametric statement on Page 180, the stringency was also increased by the use of a two-tailed test.

.10 level. All other levels will be reported and explained. Three suggestions on significance levels and the way to report them are extracted from the work by Morrison and Henkel entitled The Significance Test Controversy (Skipper et al, 1973). The suggestions adopted in the research are as follows:

(1) Note the arbitrary nature of conventional levels of significance.

(2) Report the actual level of significance obtained.

(3) Whatsoever the level, give an explanation regarding whether or not it supports the hypothesis propounded.

Statistical Procedures

A number of statistical approaches have been employed in the study. They are as follows:

(1) Student's t test for differences in means using correlated samples.

(2) Tests of significance of differences for independent groups.

(3) The Analysis of Variance Technique (ANOVA).

(4) The Analysis of Covariance Technique (ANCOVA).

(5) The non-parametric statistical treatment of the Sign Test.

The Design

The design involves two experimental groups (X and Y) and a Control group (C). The testing consists of the pre-test, the post-test, and a follow-up test (0_1, 0_2, 0_3). The follow-up test was given one month after the termination of treatment.

Table 3

Model of the Design of the Experiment

Condition	Treatment Duration			Follow-up 1 Mth. Later
	Pre-Test	Treatment	Post-Test	
X	O_1	Modelling	O_2	O_3
Y	O_1	Social Reinforcement	O_2	O_3
C	O_1	No Contact	O_2	O_3

Where the three groups are to be analyzed on the basis of the criterion or dependent variable (O_2), the analysis of covariance was used. When the experimental groups were combined in order to compare a single treatment group with the control group, the t test was applied. The analysis of variance was also used in checking for homogeneity of variance among pre-test measures.

Using a simpler measure of gain scores is generally circular in experiments of this nature and does not take into consideration the initial error among groups and the variation within individuals. Gourlay (1953) elaborates the argument in favour of covariance analysis instead of using gain scores provided all conditions necessary to ensure the validity of covariance analysis are satisfied.

Analysis of Covariance

In this method, allowance is made for the correlation with the criteria of the pre-test initial measures, which may be related variables or initial measures of the variables

eventually to be measured again as criteria. Evidence for the advantages of using covariance analysis has been fully summarised by Gourlay, who points out that the technique may be used to increase the precision of an experiment, though it is sometimes misused in situations where groups are known to be non-random, and for analysing relationships among variables all measured after treatment has been completed, as in both the latter cases conclusions are more limited than in the random groups situation in which treatments are not allowed to affect the covariates.

Stanley (1973) also gave support for the more general use of covariance analysis. He suggests:

> One uses the antecedent measurements to estimate, by least-squares linear regression, the outcome measurements and then performs an anova of the differences between the actual outcome measurements and the outcome measurements estimated from the antecedent measurements. Thus, one is performing an anova of the errors of estimation, which are likely to be less variable than are the actual outcome scores within factor-level combinations unless the experimenter chose antecedent variables largely unrelated to the outcome measures.

The Sign Test (Appendices)

The sign test is a non-parametric technique which is utilised when only the direction, and not the size, of difference between matched pairs may be determined. With a sample of 25 or less, a table of probabilities is used to determine the significance of x, which represents the condition with fewer signs in one direction. However, in samples greater than 25 the significance of the sign test is determined by a formula and the use of appropriate

tables. The formula gives a Z value:

$$Z = \frac{(x \pm 0.5) - \frac{1}{2}n}{\frac{1}{2}\sqrt{n}}$$

In the present study the former procedure was employed as all n's were equal to 10.

CHAPTER 10

ANALYSIS OF RESULTS FOR PILOT STUDIES I AND II

Pilot Study 1

The preliminary studies took place at a school for the maladjusted delinquent in South-West London (Pilot Study I) and at a comprehensive high school in North London (Pilot Study II). These pilot studies were carried out to gain experience in various aspects of the methods of approach in behavioural group counselling. The subjects were entirely free to take part and to leave whenever they wished. The testing was demanding and reading problems limited the number of instruments that could be used. As a result, fewer instruments were available for analysis.

It was observed that the experimental methods appeared to be more effective than the control conditions in encouraging the majority of subjects to request more activity of this nature in the future. Members of the control group of Pilot Study I expressed a mere curiosity but only one definite request for group counselling was registered (Table 4).

Table 4

Request for Group Counselling
In Pilot Study I

Condition	No. of Ss.	No. Making Self-Referral
Exp X (Modelling)	9	6
Exp Y (Soc. Reinf.)	8	5
Control	8	1
Total Ss	25	12

The Personality Inventory

The Eysenck Junior Personality Inventory (EPI) was used to test for any initial differences that existed among the three groups, the experimental X (modelling), the experimental Y (social reinforcement), and the group C (control). The aim of this procedure was to test for possible differences among the groups. The scales of the EPI are Extraversion-Introversion, Neuroticism-Stability, and the Lie Scale.

The results revealed that in the following table (Table 5) the F ratios were not significant at the 5% level. This supported the fact that the three groups were randomly chosen on the personality variables. The EPI was not used as a covariate when the criterion scores were analysed.

Table 5

ANOVA of the Three Scales of EPI
For Pilot I

Scales	Source of Variation	DF	M.S.	F	P
Extraversion	Between	2	10.369	0.703	N.S.
	Within	23	14.752		
Neuroticism	Between	2	11.077	0.421	N.S.
	Within	23	26.283		
Lie Scale	Between	2	0.692	0.135°	N.S.
	Within	23	5.130		

*(F: 2, 23 = 3.52, p. < .05)

° Since $\frac{1}{F}$ = 7.5, it suggests the groups are non-random in this respect, as the means are somewhat closer than would be expected for random groups. This is probably an accident of sampling.

The Berger Scale of Self Acceptance (S/A)

An analysis of variance test was performed on the pre test scores to test for no difference among the three conditions. Then an analysis of variance test was applied to the post test scores to see if differences were present without the control of initial variation. Finally, the analysis of covariance was performed on the post test scores to test for predicted differences in favour of the experimental groups.

The Table (Table 6) revealed differences among groups in the predicted direction.

* Sources of significance levels after Winer (1962) and Ferguson (1976).

Table 6

Analyses of Pre and Post Test Scores on Self Acceptance for Pilot I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	97.284	1.501	N.S.
		Within	23	58.712		
Post Test	ANOVA	Between	2	355.368	4.906	$P < .05$
		Within	23	66.125		
Post Test	ANCOVA	Between	2	101.390	3.402	$P < .06$
		Within	22	29.802		

(F: 2, 23 = 3.42; 2, 22 = 3.44; $p < .05$)

The Analysis of Covariance showed a significant difference among the three groups (X, Y and C) at close to the 5% level. On an examination of the table (Table 7) of adjusted means it was revealed that both the experimental groups showed gains over the control group. It was further shown that the condition Y (social reinforcement) did slightly better than the condition X (modelling) on this measure.

Table 7

Adjusted and Unadjusted Means on Self-Acceptance in Pilot I

Groups	Unadjusted Means	Adjusted Means
X	54.666	53.991
Y	56.777	54.819
C	28.888	47.284

The Berger Scale of Acceptance of Others (A/O)

An analysis of variance was performed on the pre-test scores of the three groups on the scale of acceptance of others. This revealed no significant differences, showing that the groups were fairly close on this variable. The ANOVA of post-test scores revealed no significance as well. The ANCOVA on the post-test scores on A/O also revealed no significant differences. However, the adjusted means revealed a small gain in favour of the experimental groups. The tables (Tables 8, 9) that follow illustrate the situation.

Table 8

Analyses of Pre and Post Test Scores on Acceptance of Others for Pilot I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	27.257	0.413	N.S.
		Within	23	66.058		
Post Test	ANOVA	Between	2	8.911	0.121	N.S.
		Within	23	73.428		
Post Test	ANCOVA	Between	2	16.081	0.706	N.S.
		Within	22	22.791		

(F: 2, 23 = 3.42; 2, 22 = 3.44; $p < .05$)

Table 9

Adjusted and Unadjusted Means on Acceptance of Others in Pilot I

Groups	Unadjusted Means	Adjusted Means
X	54	55.482
Y	55	53.565
C	52.83	52.753

So far the data revealed definite gains on the part of the experimental groups in self acceptance. This was not fully supported in the case of the variable acceptance of others. Actually, the study population seemed cautious in expanding relationships.

Ratings by External Observers

The Tables (10, 11) that follow show the ratings of behaviour of subjects in the three groups. These ratings were done by the three senior teachers of the school. The ratings expressed the manner in which the rater viewed the subject in regard to the subject's expressed behaviour toward his school work, toward people and toward making decisions while in school. Behaviour which contributed toward leading the individual into difficulty with the school or civil authorities was also taken into consideration.

The ratings were given on two occasions: the first at the end of treatment, and the second one month following the termination of treatment. The ratings were combined

and placed in a single table for each occasion. Immediately following treatment both experimental groups did better than the control group. In like manner, one month following the termination of treatment, both of the experimental groups maintained gains whereas the control group showed no consistent pattern. The Tables (Tables 10, 11) of the sign tests follow.

Table 10

Sign Tests of Gains on Ratings (Positive or Negative) of Observed Behaviour toward Self and Others Among the Experimental Groups X, Y, and the Control Group C, Immediately following the Termination of Treatment, as Judged by Three Senior Staff Members.

Group X Ss	Post Obs.	Group Y Ss	Post Obs.	Group C Ss	Post Obs.
1	+	1	+	1	+
2	-	2	+	2	-
3	+	3	+	3	+
4	+	4	+	4	-
5	+	5	-	5	-
6	+	6	-	6	+
7	+	7	+	7	-
8	+	8	+	8	-
9	+	9	+	9	+
10	-	10	+	10	+
X = 2		X = 2		X = 5	
N = 10		N = 10		N = 10	
P = .055		P = .055		P = .623	
P < .06		P < .06		P > .10 (10%)	
Significant		Significant		N.S.	

(Pilot Study I - Approved ; School for the Maladjusted and/or Delinquent Youth.)

Table 11

Sign Tests on Ratings (Positive or Negative) of Observed Behavior Toward Self and Others Among the Experimental Groups X, Y and the Control Group C, One Month Following the Termination of Treatment, as Judged by Three Senior Staff Members

Group X Ss	Obs. Later	Group Y Ss	Obs. Later	Group C Ss	Obs. Later
1.	+	1.	+	1.	+
2.	-	2.	+	2.	-
3.	+	3.	+	3.	+
4.	+	4.	+	4.	-
5.	+	5.	-	5.	-
6.	+	6.	-	6.	+
7.	+	7.	+	7.	-
8.	+	8.	+	8.	-
9.	+	9.	+	9.	+
10.	-	10.	+	10.	+
X = 2		X = 2		X = 5	
N = 10		N = 10		N = 10	
P = .055		P = .055		P = .623	
P < .06		P < .06		P > .10	
Significant		Significant		N.S.	

(Pilot Study I - Approved School, London)

Summary of Results for Pilot Study I

In summary we note the following conclusions generally favouring the experimental groups.

(a) In the case of self-acceptance, both experimental groups (X and Y) were significantly better than the control group, and social reinforcement (Y) scored higher than the modelling group (X).

(b) In the case of acceptance of others, the analysis of covariance did not yield a significant difference among the groups, but the adjusted means table revealed a slight gain by the experimental groups over the control group, and modelling (X) was better than social reinforcement (Y).

(c) Ratings by external observers on the expressed behaviour of members in the three groups revealed a significant difference in favour of the experimental groups over the control group. This finding was found at the end of treatment and was maintained one month following this.

Pilot Study II

This pilot study took place at Holloway Secondary School, London. Students and staff cooperated in the study with great interest. Students who participated were able to make useful gains on a number of dimensions.

The data following (Table 12) show the number of students from each of the groups (X, Y and C) who volunteered for further work in group counselling. Members of the two experimental groups showed far more positive

signs of interest than those of the control group.

Table 12

Request for Group Counselling From Clients in Pilot Study II

Groups	Total Ss.	No. Making Self-Referral
Exp. X	9	8
Exp. Y	9	7
Control C	9	3
Total Ss.	27	18

The Personality Inventory

The Eysenck Personality Inventory was given at the beginning of the study to test for initial differences that were unusual. The data (Table 13) show the analysis of variance among groups for extraversion, for neuroticism and for the Lie Scale.

The results indicate that the F ratios for each of the personality variables were not significant. This means that the experimental groups and the control group were effectively randomly allocated in terms of personality qualities as expressed by this inventory. Therefore, in accounting for any differences after treatment, the personality variable could not be claimed to have contaminating effect.

Table 13

ANOVA of the Three Scales of EPI for Pilot II

Scales	Source of Variation	DF	M.S.	F	P
Extraversion	Between	2	13.815	1.539	N.S.
	Within	24	8.972		
Neuroticism	Between	2	20.593	1.087	N.S.
	Within	24	18.944		
Lie Scale	Between	2	0.259	0.0698°	N.S.
	Within	24	3.713		

(F: 2, 24 = 3.40, $p < .05$)

°Possibly the groups were non-random in this respect (See Pilot I)

The Semantic Differential (S-D)

An analysis of variance was performed on the pre-test scores for the three groups (X, Y, C) and was found not significant. The F ratio on the post-test scores for the three groups revealed no significant differences. On the analysis of covariance an adjusted F ratio of 4.779 revealed significant differences among the three groups at the .05 level of probability.

The tables (Tables 14, 15) that follow give evidence to support the superiority of the experimental groups over the control group on the S-D in Pilot Study II.

Table 14

Analyses of Pre and Post Test Scores on S-D for Pilot II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	7.814	0.0357	N.S.
		Within	24	218.787		
Post Test	ANOVA	Between	2	341.371	2.489	N.S.
		Within	24	137.148		
Post Test	ANCOVA	Between	2	294.411	4.779	$P < .05$
		Within	23	61.593		

(F: 2, 24 = 3.40; 2, 23 = 3.42; $p < .05$)

Further support for differences among groups can be observed from the sequence of adjusted means. Experimental X and Experimental Y did better than the Control C. In this variable the modelling group gained a higher mean than the social reinforcement group.

Table 15

Adjusted and Unadjusted Means on S-D For Pilot Study II

Groups	Unadjusted Means	Adjusted Means
X	134.333	133.979
Y	126.333	126.045
C	122.222	122.864

The Berger Scale of Self-Acceptance (S/A)

The analysis of variance technique was performed on the pre test and post test scores of the three groups. There were no significant differences among groups on the pre test as well as on the post test scores. When the analysis of covariance was performed on the post test scores, a significant difference at the 5 percent level emerged. The following tables (Tables 16, 17) serve to illustrate these findings.

Table 16

Analyses of Pre and Post Test Scores on Self Acceptance for Pilot II

Test	Statistics	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	15.593	0.379	N.S.
		Within	24	41.111		
Post Test	ANOVA	Between	2	50.815	0.819	N.S.
		Within	24	62.037		
Post Test	ANCOVA	Between	2	114.683	5.088	$P<.05$
		Within	23	25.538		

(F: 2, 24 = 3.40; 2, 23 = 3.42; $p < .05$)

In addition to the significance of differences shown on the analysis of covariance table, the nature of differences among the adjusted means (Table 17) supports the hypothesis. The results reveal that both of the experimental groups have higher means than the control group. Further, the social reinforcement group was higher than the modelling group on

the self-acceptance dimension.

Table 17

Adjusted Means on Self-Acceptance
For Pilot II

Groups	Unadjusted Means	Adjusted Means
X	48.1	48.919
Y	49.6	50.365
C	45.0	43.494

The Berger Scale of Acceptance of Others (A/O)

On the scale of acceptance of others as in the previous scale, the analysis of variance was performed on the pre test and post test scores. In both of these cases there were no significant differences among the three groups, X, Y and C.

Table 18

Analyses of Pre and Post Test Scores
on Acceptance of Others for Pilot II

Test	Statistics	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	60.259	1.949	N.S.
		Within	24	30.907		
Post Test	ANOVA	Between	2	46.334	1.191	N.S.
		Within	24	38.889		
Post Test	ANCOVA	Between	2	41.292	3.721	$P < .05$
		Within	23	11.097		

(F: 2, 24 = 3.40; 2, 23 = 3.42; $p < .05$)

The analysis of covariance on the post test scores revealed a significant difference among the three groups at the five percent level. The findings are illustrated in the tables shown (Tables 18, 19).

Table 19

Adjusted Means on Acceptance of Others For Pilot II

Groups	Unadjusted Means	Adjusted Means
X	52.8	51.791
Y	48.5	51.388
C	49.5	47.82

The table (Table 19) of adjusted means contributed further support in the predicted direction. Both of the experimental groups (X and Y) showed a higher mean value than the control group. Group X (modelling) emerged with a slightly higher mean than Group Y (social reinforcement). The treatment was, therefore, effective in terms of the variable of acceptance of others.

Ratings by External Observers

The following tables (Tables 20, 21) show the ratings on expressed behaviour of the three groups of Pilot II. The ratings were made by three staff members who worked with the clients daily. When the ratings were combined it was revealed that the experimental groups did better than the control group on two occasions, immediately following treatment and one month following the termination of treatment.

In the ratings immediately following treatment, the sign test revealed that Group X had a significant standing at the .05 level, Group Y had a significant rating at the .10 level, but Group C did not possess a significant rating. The same result was maintained one month following treatment. Therefore, on the basis of the ratings it was concluded that both of the experimental groups were better than the control group and that the level of significance of the modelling group suggested superiority of this method over that used in the social reinforcement group.

Table 20

Sign Tests on Ratings (Positive and Negative) of Observed Behaviour Toward Self and Others Among the Experimental Groups X, Y, and the Control Group C, Immediately Following the Termination of Treatment as Judged By Three Staff Members

Group X Ss	Post Obs.	Group Y Ss	Post Obs.	Group C Ss	Post Obs.
1.	+	1.	+	1.	+
2.	+	2.	+	2.	-
3.	+	3.	+	3.	+
4.	+	4.	+	4.	-
5.	+	5.	+	5.	-
6.	-	6.	-	6.	-
7.	+	7.	-	7.	+
8.	+	8.	+	8.	+
9.	+	9.	+	9.	+
X = 1		X = 2		X = 4	
N = 9		N = 9		N = 9	
P = .02		P = .09		P = .50	
P < .05		P < .10		P > .10	
Significant		Significant		N.S.	

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Table 21

Sign Test on Ratings (Positive and Negative) of Observed Behaviour Toward Self and Others Among Experimental Groups X, Y, and Control Group C, One Month Following the Termination of Treatment, as Judged by Three Staff Members

Group X Ss	Obs. Later	Group Y Ss	Obs. Later	Group C Ss	Obs. Later
1.	+	1.	+	1.	+
2.	+	2.	+	2.	-
3.	+	3.	+	3.	+
4.	+	4.	+	4.	-
5.	+	5.	+	5.	-
6.	-	6.	-	6.	-
7.	+	7.	-	7.	+
8.	+	8.	+	8.	+
9.	+	9.	+	9.	+
X = 1		X = 2		X = 4	
N = 9		N = 9		N = 9	
P = .02		P = .09		P = .50	
P < .05		P < .10		P > .10	
Significant		Significant		N.S.	

Pilot Study II - Ordinary Comprehensive School

Summary of Results for Pilot Study II

In Pilot Study II it was revealed that the experimental groups were consistently favoured over the control group. The following points serve to summarize the results of the treatment with Pilot II.

(a) In the case of the S-D, both of the experimental groups (X and Y) were significantly better than the Control (C), and the modelling group was better than the social reinforcement group.

(b) In terms of S/A, both of the experimental groups were significantly better than the control group, and the social reinforcement group was better than the modelling group.

(c) In terms of A/O, both of the experimental groups were significantly better than the control group, and the modelling group was slightly ahead of the social reinforcement group.

(d) In terms of ratings by external observers, it was found that both of the experimental groups showed significant improvements, which was not true of the control group immediately following treatment. This finding was maintained four weeks following the termination of treatment.

CHAPTER 11

DISCUSSION OF PILOT STUDIES

On the basis of the two pilot studies undertaken in London, England, certain directions for the research became clear, and obvious refinements of the method and instruments were indicated. The pilot studies led to a re-consideration of the method of selection of subjects, the approach to treatment, the possible difficulties involved in the understanding level of the instruments by subjects, and the introduction of a finer form of rating than self-referral for further counselling. Each of these points will be examined so that the concern for and introduction of a method of refinement could be illustrated.

Another aspect of importance in carrying out a pilot study was the response to treatment on the whole. In both of the pilot studies the response from subjects was encouraging. Their attendance at the majority of the sessions, with only few exceptions for illness and absence from school was a good sign; their attitudes also seemed favourable. The results of the experiments showed that the experimental groups gained higher outcome scores over the control groups. In connection with this the support given by the institution throughout the project was extremely helpful. Without this support, in terms of release time for students and of arrangements for space and accommodation, the experiment could not have been carried out. The researcher was in a better position to make arrangements ahead of time for future studies as a result of this

experience. Preparations for testing, interviewing, sampling, gaining assistance from staff for rating, and giving feedback to staff and students were activities to be worked out beforehand. A schedule of and specifications for these preliminaries were devised as a result of the studies.

Still another general aspect of the research was the inadequate knowledge and practice the subjects had in relation to learning and operating in the small group setting. This seemed to be a very crucial aspect of the undertaking. It was observed that with subjects who possessed very little basic appreciation of the small group process, there is some difficulty in functioning positively and a fair amount of time is spent in unravelling disruptions and in unproductive activities, as was seen in some studies in the literature.

The studies that demonstrate this weakness revealed that the open, uncontrolled approach failed. These studies, to name a few, include the following: by Polsky (1962) on cottage six with a lack of trained staff, free openness, and non-directiveness; by Fisher (1969) on group work done with narcotics and characterised with a lack of direction; and by Rosemary Dean (1972) in an attempt at open group work in prisons in London. All of these studies served to illustrate the common but real problem that can be faced in the application of the group process in treatment. Some of this was experienced in the first pilot study. Therefore, in the second pilot study a preliminary interview on a one-to-one basis was held for briefing purposes. Then this was followed by two training sessions in the method of the group process. These sessions were aimed at developing the

ground rules and allowing the clients to use the method of interaction for purposes of gaining ideas and trying them out. On the basis of this refinement all trials that followed had "warm-up" sessions at the start, and at each meeting there was, at least, five to ten minutes spent in a "warm-up" period as was shown in the chapter on Method. The present researcher believes, on the basis of this practice, that the training in the approach and the emphasis on that which is expected of each participant, are necessary and significant ingredients in the practice of group counselling with adolescents. Of course, during the general training sessions the leader of the group must reinforce, very directly, positive manifestations of the application of the desired method.

Method of Selection of Subjects

The method of selection of subjects could be affected by the characteristics and working realities of the institution. In the pilot studies there were certain limitations in the sense that the cooperation from teachers necessary to ascertain students who may be released was required before sampling could be undertaken. While assistance was given by the schools, the researcher applied randomization to arrive at the three groups. Additions were made to compensate for a few who had to be deleted from the pilot studies for one reason or another. This restriction was avoided in further trials.

In order to deal with this restriction in the future, the researcher did two things. In the first place, a greater number of subjects was requested. At least each of the three groups had three students more, so that in the

case where a student could not be involved there was a replacement from the "sampled" set. In the second place, each student selected in the samples was interviewed to see whether he wanted to take part, so that he would have the opportunity to retire long in advance of the beginning of treatment. In addition, the candidates were given an opportunity to hear beforehand something of the nature of the programme.

The pilot studies, therefore, helped towards a refinement of the method of selection of the clients and permitted the setting up of a rationale for the implementation of an organized approach. These studies also showed that a briefing session was necessary so that the clients could be given the opportunity to make a decision to join or not to join on the basis of prior informed explanation of the process, which ought to be a necessary part of any treatment.

The Approach to Treatment

Aspects of the treatment method were adjusted on the basis of the pilot studies. Early in a typical session the client was given the opportunity to express how he feels in terms of the particular problem for the day. This was extended to include a dramatization of the way each individual feels, and the role playing of the situation under different conditions including how the individual would wish to see himself. Repeated consideration of the problem situation appeared necessary in order to clarify problems and to give ample scope for training in the learning of new skills later in the session.

At times during the group process it was observed that

when interaction had to be strengthened the number in the group was too large. For preliminary problem solving the group was broken down into dyads for short periods of time, at the end of which the subjects came together into the single group for an exchange of findings. This seemed to work effectively in that the feedback was enlightening and a variation of the method was introduced during the session.

Before treatment commenced and in addition to the agreement of the subject to take part in the project, another agreement was also needed. This was not made clear to the subjects in the pilot studies. In effect, any subject in the pilot studies could attend in accord with a varying schedule. Although in a minority, there were some subjects who were absent from treatment sessions on occasions. On the basis of this and with background from clinical sources, it was decided to introduce the concept of commitment to treatment throughout the session. Each subject in all the trials was expected to give an oral commitment to treatment if he wanted to take part. This worked well by giving him a chance at development in terms of maturity and responsibility.

Instruments

As far as the instruments were concerned, those reported in the pilot studies were within the grasp of the subjects. The semantic differential and the Berger scales of self-acceptance and acceptance of others yielded satisfactory results.

The Tennessee self concept scale was tried, but because of its complicated structure, it was not completed by most of the candidates and had to be deleted. As a result of this

apparent difficulty of the TSCS, it was decided to attempt it in further trials and to assist those subjects who appeared to have difficulty in understanding the organisation of the test and in interpreting the language for those who appeared to have some form of learning disabilities (Raza and Hubert, 1976). It was shown that the instrument did possess strong technical features and tapped elements of self and relationship with others, both of which were central to the treatment. Notwithstanding the effectiveness of the test, further attempts to use it in the Canadian experiments met with similar difficulty. Therefore, for the last two trials the TSCS had to be replaced by the Piers Harris scale which was similar to the former but simpler in style and organization. This was noted in the section on results for Trial IV. Another instrument that was used in all trials of the experiments was the rating procedure by external examiners. The external ratings proved effective and were continued. These ratings also had the advantage of involving staff in the study of their students as well.

The request of subjects in referring themselves for further work in group counselling was useful but not feasible as a guide to immediate treatment effect. Therefore, from studies in behavioural counselling and modelling noted earlier, a form of measurement using self-rating was designed. This was only applied in the last two trials in order to gain an alternative approach to the measurement of treatment effect from stage to stage. It was an exploratory attempt to test an approach which depended to a large extent upon the maturity and objectivity of the subject.

Additional Introductions

The pilot study did not incorporate any measures on later scores as a result of the release of subjects from the institution and the time factor at the end of term. It was decided to gain an idea of the effect of treatment, at least one month following the conclusion of group counselling. Therefore, this was built into the planning for all future trials in the research.

By giving pre and post tests the Analysis of Covariance was possible. This procedure was used to advantage in the pilot studies and, moreover, was adopted in all of the trials. In addition to earlier noted support, Bennett (1976, p. 81) may be quoted in this regard.

Conflicting Procedures

In a case in one pilot study the institution used another procedure to encourage students to take part in various activities. A token in terms of points was given for attendance at activities. These points were exchanged from time to time for various privileges for which students had to obtain special dispensations.

Unknown to the researcher, this method applied to the group counselling procedure. It seemed that in order to amass the bonus points allotted for "attending" the group treatment, there were some students who interpreted the token agreement literally and simply "attended" for the points and left within a short period of time. They had made no commitment to treatment and were not involved. Therefore, in future trials, a commitment was sought as was explained

earlier. This whole action led the present researcher to check with the administration of schools in which the five trials took place beforehand. The aim was to ensure that there was no other procedure which would counteract the methods and principles on which the reinforcement group counselling procedures were designed. Above all, clearance was made in future trials to see that no reinforcement schedules at cross purposes to those in the present research were in vogue.

In summary, experience gained from the pilot studies served to influence adjustments in preliminary specifications, basic procedures, and actual conduct of group counselling. It also served to determine the degree of improvements of certain instruments of measurement, such as the self-concept scales and the external ratings. Such experience did help in pointing the direction necessary for the statistical interpretation of the data, since it provided preliminary results on which analysis could be performed so that on the basis of positive findings at this stage, further research was made possible.

CHAPTER 12

ANALYSIS OF RESULTS FOR TRIAL I

Introduction

Five trials of the experiment were completed, each taking approximately three months' duration. The studies that were completed during the year 1974-75 involved a Junior High School and two trials at the Training School for delinquent boys. Two trials were completed during 1975-76, one involving another Junior High School and one at the Youth Training Centre.

An analysis of the findings of the five trials attempted over a two-year period is presented in Chapters 12 to 16. Three groups of ten subjects each were selected. Group X formed the first experimental (Modelling) condition, and Group Y formed the second experimental (Social Reinforcement) condition. Group C formed the no-contact control condition.

Results of Trial I

The trial consisted of two experimental conditions and a control group. No data following the termination of treatment were obtained as many in the groups were released to their homes in various parts of the province earlier than expected. Instead, a rating by the principal of the school and Director of the Centre on the nature of recidivism was obtained three months after the termination of treatment. However, this rating is meant to reflect not only the effect of treatment but also the effect of other preventive measures adopted as well. These measures do include

individual counselling which also did form a part of the preliminary treatment as well.

The Personality Inventory

The Eysenck personality inventory was given, as in the Pilot Studies, to test what differences, if any, existed among the three groups in the study. The aim of this approach is to make sure that the three groups, the two experimental conditions and the control group, are random in terms of the variables on the personality test. The variables are Extraversion-Introversion, Neuroticism-Stability and the Lie Scale.

A summary of the results are shown in the table (Table 22).

Table 22

Analysis of Variance of EPI Variables For Trial I

Variable	Groups	DF	F Ratio	Significance
Extraversion	X, Y, C	2.27	0.861	P >0.05 (N.S.)
Neuroticism	X, Y, C	2.27	0.297	P >0.05 (N.S.)
Lie Scale	X, Y, C	2.27	0.076	P >0.05 (N.S.)

(F: 2, 27 = 3.35, $p < .05$)

The F ratios are all lower than the value (3.35) required for significance at the 5% level of probability. When interpreted in terms of the groups, this revealed that the differences were non-significant.

The Semantic Differential

The analysis of variance for the pre test scores are shown in the first place (Table 23). This is followed by an analysis of variance for the post test scores. Finally, an analysis of covariance for the post test scores using the pre test scores as covariates is given.

Table 23

Analyses of Pre and Post Test Scores On S-D for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	290.625	1.207	N.S.
		Within	27	240.838		
Post Test	ANOVA	Between	2	37.875	0.195	N.S.
		Within	27	194.039		
Post Test	ANCOVA	Between	2	305.016	5.043	$P < .05$
		Within	26	60.483		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

The analysis of variance of the pre test scores revealed a significance level far in excess of the limit of ten percent. Therefore, while the means of the three groups were slightly different numerically, they were almost similar statistically. The three groups were generally equal on this variable. So that any change in the groups at the end of the experiment would definitely be due to the experimental treatment.

In the case of an analysis of variance on the post test

scores the resulting F-ratio (Table 23) showed a probability level of significance in the very high range which is not acceptable. This non-significant result occurred since the initial differences among groups, though not statistically significant, were not considered in the analysis. In the table (Table 23), an analysis of covariance of the post test scores, taking the initial differences of the pre test scores into consideration, was also shown.

The analysis of covariance of the scores immediately after treatment (Table 23) revealed a significant F ratio, $F(2, 26) = 5.043$, $p < .05$. This result provides evidence for the sub-hypothesis that treatment in the form of group counselling using modelling and social reinforcement has been effective. Both of the experimental groups were better than the control group. But the experimental group Y had a slightly higher mean score than the experimental group X. The experimental group using social reinforcement and no live models intervening was better than the other condition.

Table 24

Adjusted and Unadjusted Means of Groups On the S-D for Trial I

Groups	Unadjusted Means	Adjusted Means
Experimental X	116.7	117.276
Experimental Y	115.899	119.629
Control C	113	109.695

It is clear from the adjusted means table (Table 24) that when the data are adjusted the means of the experimenal groups are greater than the mean of the control. Initial differences taken into account by means of a regression analysis do tend to pinpoint the effect of the treatment process.

The Berger Scale of Self-Acceptance and Acceptance of Others

Self-Acceptance

The analysis of variance of the pre test scores on the Berger Scale of Self-Acceptance showed that the three groups differed in their initial views of self and were not evenly matched. It is useful to observe differences at the beginning of experiments on self variables and personal variables since these differences can be controlled by the appropriate statistical treatments. This is one of the reasons for analysing the data in various ways and for using the covariance technique. It should be underscored that in studies of this nature, it is not possible to match subjects exactly on the variables involved. No attempt was made to do that since the differences were taken into account in various ways.

The F ratio resulting from an analysis of pre test scores on the three groups revealed a value of 4.991 (Table 25). This ratio was significant at the 1 percent level. It showed that the three groups were significantly different in their attitude towards themselves or the way in which they perceive the acceptance of "self" prior to

the commencement of the experiment.

Table 25

Analyses of Pre and Post Test Scores on Self Acceptance for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	262.031	4.991	$P < .05$
		Within	27	52.498		
Post Test	ANOVA	Between	2	60.094	1.022	N.S.
		Within	27	58,789		
Post Test	ANCOVA	Between	2	48.096	1.235	N.S.
		Within	26	38.952		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

The F ratio on post test scores revealed a value of 1.022 ($P > .10$) (Table 25). The means of the groups after treatment without considering the differences in input revealed very small differences and could not attain the level of significance hoped.

The analysis of covariance revealed an F ratio of 1.235 (Table 25). This ratio only reached a significance level of .307, greater than the level to be expected in this study. Therefore, there are no significant differences among groups on the Berger Scale of self-acceptance in this trial. Although the hypothesis that the experimental groups would be better than the control groups cannot stand, it is important to note that both experimental groups did score somewhat higher means than the control group when the adjustment

scores were examined.

Table 26

Adjusted and Unadjusted Means of Groups on Self Acceptance on Trial I

Groups	Unadjusted Means	Adjusted Means
Experimental X	50.	53.586
Experimental Y	54.899	54.093
Control C	52.599	49.819

In the case of the unadjusted means of the three groups, the experimental group involving social reinforcement was highest, the control group was second, and the experimental group based on modelling was lowest. When the means were adjusted (Table 26) to take into consideration the effect of initial differences, the control group was lowest. Both of the experimental gained better mean scores than the control group.

Acceptance of Others

The analysis of variance on the pre-test scores of the Berger Scale of Acceptance of Others (Table 27) revealed a significant difference among the three groups. An F ratio of 5.130 is significant at the one percent level. The groups, therefore, were significantly different at the commencement of the experiment. In fact, the control group initially possessed the highest mean score and this was followed in turn by the group using social reinforcement and the group utilising modelling.

Table 27

Analyses of Pre and Post Test Scores on Acceptance of Others for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	260.219	5.130	P<.05
		Within	27	50.719		
Post Test	ANOVA	Between	2	34.531	0.693	N.S.
		Within	27	49.819		
Post Test	ANCOVA	Between	2	52.343	2.713	P<.10
		Within	26	12.290		

(F: 2, 27 = 3.35; 2, 26 = 3.37; P < .05)

The post test scores of the Berger Acceptance of Others (Table 27) were analysed for differences without any consideration of prior effects. It was found that the differences among the three groups reached a low level of probability with P = .509. This clearly indicates that the differences were only statistically possible to the 50 percent level, and, therefore, were not significant. When initial differences were considered, the results favoured the experimental groups.

When the analysis of covariance was considered, the differences proved significant at a probability level a little better than one percent (Table 29).

While the differences among groups are moderate, it is clear that they are statistically acceptable and that they point to the effectiveness of the experimental treatment,

which gave the advantage over the control group.

Table 28

Adjusted and Unadjusted Means of Groups on the Scale of Acceptance of Others for Trial I

Groups	Unadjusted Means	Adjusted Means
Experimental X	50.699	54.336
Experimental Y	53.699	54.354
Control C	54.099	49.809

The unadjusted means showed differences favouring the control group and this was followed by the experimental groups utilising social reinforcement and modelling. After adjustment (Table 28) it was seen that both of the experimental groups scored higher than the control group.

The Tennessee Self-Concept Scale

Results of the Tennessee Self-Concept Scale will be presented for each of the seven sub-scales. The aim is to find the most potent variables within the scale that is consistent in determining gains emanating out of treatment.

It should be pointed out that the Tennessee Self-Concept Scale was only given as a post-test measure at the end of treatment. It was not used in the pre test stage. In order to control for initial differences in scores, a related measure was used. The Eysenck personality inventory was given as the pre test variable. Two variates from the EPI, Extraversion and Neuroticism, were used. The analysis of variance of these variables was presented earlier (Table 22), and will be used for all seven sub-scales of the self-concept

scale.

The analysis of variance of scores on the Extraversion Scale of the EPI revealed an F ratio of 0.861 (Table 22). This value is not significant at the 5% probability level. In fact, it may be said that it is a highly non-significant ratio. This means that the three groups show little differences on the Extraversion variable, and as such no one group does have an advantage over any other. The groups are evenly placed in terms of the variable.

The variance analysis of scores on the Neuroticism Scale reveal an F ratio of 0.297 (Table 22). This F ratio is not significant at the 5% level. In terms of the three groups, there are no significant differences among them on the Neuroticism scale. Each group did possess the same advantage at the beginning of the treatment.

Total Positive Dimension of the TSCS

The F ratio for post test scores revealed a significance of 0.11 which is very close to the limit of 10% set as the furthest point for this study (Table 29). This value is close to significance and appeared to be near the value received in the following analysis of covariance.

Table 29

Analyses of Post Test Scores on the Total Positive Scale of the TSCS for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 22	N.S.
		Within				
Post Test	ANOVA	Between	2	2266.	2.401	P=.11
		Within	27	943.926		
Post Test	ANCOVA	Between	2	2075.521	2.411	P=.11
		Within	25	860.990		

(F: 2, 27 = 3.35; 2, 25 = 3.38, $P < .05$)

The results of the Analysis of Covariance revealed an F ratio of 2.411 (Table 29). This ratio has a probability value of 0.11. Since this is quite close to the probability set as the farthest limit for an experiment using personal variables, there is weak support for significant differences among groups on this variable.

Table 30

Unadjusted and Adjusted Means of Groups on the Total Positive Scale of the TSCS

Groups	Unadjusted Means	Adjusted Means
Experimental X	310.5	310.703
Experimental Y	311.799	311.070
Control C	285.099	285.625

In examining the adjusted mean scores for the three groups, the ANCOVA revealed that there are differences among them. Both of the experimental groups scored higher than the control group.

An examination of the adjusted means of the three groups in this study showed that the two experimental groups have a higher mean score than the control group (Table 30). It should be noted with caution that the experimental groups gained greater success from the treatment than the control group, and this is statistically within the probability constraints imposed on this research.

The Self-Criticism Sub-Scale of the TSCS

In the analysis of variance of post test scores on the self-criticism sub-scale (Table 31) there was a significant difference among the three variables. The probability level was far better than the conventional region of 0.01. This showed that in conjunction with the previous illustration, the experimental groups were individually better than the control group in the expression of criticism of self in the group setting.

Since the analysis of variance was strong enough to tap differences on the variable, it follows that the next illustration would do as well. The ANCOVA shows significant differences (Table 31).

Table 31

Analyses of Post Test Scores on the Self-Criticism Sub-Scale of the TSCS for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 22	N.S.
		Within				
Post Test	ANOVA	Between	2	176.432	6.251	$P < .01$
		Within	27	28.226		
Post Test	ANCOVA	Between	2	191.952	7.366	$P < .01$
		Within	25	25.950		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

The analysis of covariance taking into consideration the effects of the pre test variables showed significant difference among the groups. The significance level improved with this technique from 0.006 to 0.003. However, following convention, it is easy to reject the null hypothesis in this case and say that the experimental groups were definitely better than the control group. This goes to illustrate the success of the treatment in the developing of realistic criticism of self and of facing up to and tolerating such criticism.

The pre test scores used in the analysis of the Self-Criticism sub-test were the same as those used in the immediately previous citation. The two pre test variables were the Extraversion and Neuroticism scales of the Eysenck personality inventory. No significant differences existed

on these two variables for the three groups in the study.

Table 32

Unadjusted and Adjusted Means of Groups on the Self-Criticism Sub-Test of the TSCS for Trial I

Groups	Unadjusted Means	Adjusted Means
Experimental X	40.799	40.552
Experimental Y	40.099	40.624
Control C	33.199	32.923

The unadjusted means revealed that the two experimental conditions in turn outweigh the control condition (Table 32). When adjusted, the situation remained the same, but the experimental condition using social reinforcement was placed a little higher than the experimental condition using modelling. This was a reversal of the situation over the unadjusted scores.

The Physical Self Sub-Scale of the TSCS

As noted in the previous section, the pre test used in the analysis here is the same, being the extraversion and neuroticism scales on the EPI.

The next analysis will be the examination of the post test scores on physical self. An analysis of variance without the effect of the input variables is presented (Table 33).

Table 33

Analyses of Post Test Scores on the Physical Self Sub-Scale of the TSCS for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 22	N.S.
		Within				
Post Test	ANOVA	Between	2	7.599	0.423	N.S.
		Within	27	25.537		
Post Test	ANCOVA	Between	2	23.869	0.319	N.S.
		Within	25	74.894		

(F: 2, 27 = 3.35; 2, 25 = 3.38, $P < .05$)

This analysis revealed that the differences in the three groups were not significant. The three groups are generally alike on the basis of the sub-scale scores alone. Actually, their means range from 63.69 for the control group to 65.39 for the modelling group to 67.29 for the social reinforcement group.

The analysis of covariance (Table 33) which took the pre test scores into consideration, showed an adjusted F value which attained a low level of significance. Therefore, the groups show no significant differences after treatment with a probability level far outside the safe conventional level of 5%. An examination of the adjusted means (Table 34) showed the trend in favour of the experimental groups, with social reinforcement higher than modelling.

Table 34

Unadjusted and Adjusted Means of Groups on the Physical Self Sub-Scale for Trial I

Group	Unadjusted Means	Adjusted Means
Experimental X	65.399	65.483
Experimental Y	67.299	67.053
Control C	63.699	63.863

The Moral Self Sub-Scale of the TSCS

The analysis of variance of post test scores on Moral Self (Table 35) showed no significant differences among the groups. The level of probability was beyond 10%.

Table 35

Analyses of Post Test Scores on the Moral Self Sub-Scale of the TSCS for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 22	N.S.
		Within				
Post Test	ANOVA	Between	2	66.5	2.081	N.S.
		Within	27	31.958		
Post Test	ANCOVA	Between	2	42.449	1.479	N.S.
		Within	25	28.687		

(F: 2, 27 = 3.35; 2, 25 = 3.38, $P < .05$)

The analysis of covariance (Table 35) revealed no significant differences as well. The summary table showed a level of probability greater than 10%.

While the groups were not statistically significant, the adjusted means fall in line with the predicted direction postulated. This is shown on the table (Table 36).

Table 36

Unadjusted and Adjusted Means of Groups on the Moral Self Sub-Scale for Trial 1

Groups	Unadjusted Means	Adjusted Means
Experimental X	58.799	59.146
Experimental Y	60.199	59.397
Control C	55.199	55.657

It should be observed that both the adjusted means of the experimental groups are greater than the control mean. However, the mean of the modelling group is slightly lower than the mean of the social reinforcement group.

The Personal Self Sub-Scale of the TSCS

In the analysis of variance of post-test scores on the Personal Self sub-scale (Table 37) the F ratio of 3.394 is significant at the .05 level. Even without the control for initial differences, the groups show variation.

The analysis of covariance of post-test scores on Personal Self (Table 37) reveal differences among the three groups. These differences are significant at the .06 level and, therefore, fall well below the optimal level set for

this study.

Table 37

Analyses of Post Test Scores on the Personal Self Sub-Scale of The TSCS for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 22	N.S.
		Within				
Post Test	ANOVA	Between	2	192.219	3.394	$P < .05$
		Within	27	56.632		
Post Test	ANCOVA	Between	2	177.808	2.984	$P < 0.1$
		Within	25	59.576		

(F: 2, 27 = 3.35; 2, 25 = 3.38, $P < .05$)

The analysis of covariance revealed differences that are significant at the probability level of 6%. This is just a little lower than the safe conventional level of 5%. Therefore, the groups show significant differences on the variable of the personal self.

An examination of the adjusted means of groups on Personal Self (Table 38) showed that both of the experimental groups scored higher than the control group. The social reinforcement group (Experimental Y) did better than the modelling group (Experimental X).

Table 38

Unadjusted and Adjusted Means of Groups on the Personal Self Sub-Scale for Trial I

Groups	Unadjusted Means	Adjusted Means
Experimental X	60.099	60.115
Experimental Y	63.5	63.438
Control C	54.799	54.846

The Family Self Sub-Scale of the TSCS

The following table (Table 39) showed the results of the analysis of variance of the post test scores on family self. Groups in this trial had some difficulty with this scale.

Table 39

Analyses of Post Test Scores on the Family Self Sub-Scale of the TSCS for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 22	N.S.
		Within				
Post Test	ANOVA	Between	2	78.625	1.003	N.S.
		Within	27	78.597		
Post Test	ANCOVA	Between	2	75.869	1.004	N.S.
		Within	25	75.553		

(F: 2, 27 = 3.35; 2, 25 = 3.38, $P < .05$)

On this analysis of the family self variable there seemed to be no significant differences among the groups. On the covariance analysis (Table 39) which takes the co-variates under control, the same pattern emerged, thus showing that the groups remained static on this variable or that the instrument was somewhat weak as suggested with this group.

Although there were no significant differences among groups on this scale, the pattern that emerged from the adjusted means supported the hypothesis regarding direction of gains. This is shown in the table (Table 40).

Table 40

Unadjusted and Adjusted Means of Groups on the Family Self Sub-Scale for Trial I

Groups	Unadjusted Means	Adjusted Means
Experimental X	63.5	63.353
Experimental Y	59.799	60.068
Control C	58	57.879

The adjusted means revealed greater scores for the experimental groups over the control group . It was further shown that the modelling condition scored a higher mean than the social reinforcement condition.

The Social Self Sub-Scale of the TSCS

The social self sub-scale appeared easier to deal with by the subjects in the experiment. The analysis of variance of post test scores revealed differences among groups

(Table 41).

Table 41

Analyses of Post Test Scores on the Social Self Sub-Scale of the TSCS for Trial I

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 22	N.S.
		Within				
Post Test	ANOVA	Between	2	252.	2.916	$P < 0.1$
		Within	27	86.421		
Post Test	ANCOVA	Between	2	251.108	2.968	$P < 0.1$
		Within	25	84.609		

(F: 2, 27 = 3.35; 2, 25 = 3.38, $P < .05$)

An F ratio of 2.916 was significant at the .07 level or well below the 10% region. The analysis of covariance showed significance at the same level of probability (Table 41).

Therefore, the covariance results showed that differences existed among groups in this trial on social self. An examination of the adjusted means (Table 42) showed that both of the experimental groups gained higher scores than the control group.

Table 42

Unadjusted and Adjusted Means of Groups on the Social Self Sub-Scale for Trial 1

Groups	Unadjusted Means	Adjusted Means
Experimental X	62.699	62.606
Experimental Y	59.199	59.349
Control C	52.799	52.745

A further prediction was supported by the pattern of the adjusted means. The modelling group gained a higher mean score than the social reinforcement group.

Ratings by External Observers

The tables (Tables 43, 44) that follow show the ratings on expressed behaviour of clients in the three groups of Trial 1. The ratings were made by teachers and counselling staff of the institution immediately following the termination of treatment and three months following the treatment. In terms of the measure three months following treatment, recidivism was used since many of the subjects were released from the training school, thereby leaving no opportunity for close observation.

In the ratings immediately following treatment, the sign test revealed a 0.06 level of significance for both of the experimental groups. Gains were, therefore, significant with these groups. On the other hand, the control group received a level of significance at the .8 level. There were little to no gains in this group. In the case of

Table 43

Sign Tests on Ratings of Observed Behaviour Toward Self and Others Among Experimental Groups X, Y and the Control C, Immediately Following the Termination of Treatment in Trial I

Group X Ss	Post Obs.	Group Y Ss	Post Obs.	Group C Ss	Post Obs.
1	+	1	+	1	+
2	+	2	-	2	-
3	+	3	+	3	+
4	+	4	+	4	-
5	+	5	-	5	-
6	+	6	+	6	+
7	-	7	+	7	-
8	-	8	+	8	+
9	+	9	+	9	-
10	+	10	+	10	-
X = 2		X = 2		X = 6	
N = 10		N = 10		N = 10	
P = .055		P = .055		P = .828	
P < .06		P < .06		P > .80	
Significant		Significant		N.S.	

Trial I - N.B. Youth Training Centre.

ratings three months following treatment, the sign test showed no significant gains in all groups. It must be observed that the levels in the experimental groups were much better than that in the control group.

Table 44

Sign Tests on Ratings of Observed Behaviour Toward Self and Others Among Groups X, Y and C, Three Months Following the Termination of Treatment (Ratings made on the basis of Recidivism).

Group X Ss	Obs. Later	Group Y Ss	Obs. Later	Group C Ss	Obs. Later
1	-	1	-	1	+
2	-	2	-	2	-
3	+	3	+	3	+
4	+	4	+	4	+
5	+	5	+	5	-
6	+	6	+	6	+
7	+	7	+	7	-
8	+	8	-	8	+
9	-	9	+	9	-
10	+	10	+	10	+
X = 3		X = 3		X = 4	
N = 10		N = 10		N = 10	
P = .172		P = .172		P = .377	
P > .10		P > .10		P > .20	
N. S.		N. S.		N. S.	

Trial I = N.B. Youth Training Centre.

Summary of Results for Trial I

It was seen that in Trial I the experimental groups were generally better than the control group and no one experimental group appeared consistently better than the other. The results are summarised succinctly.

(a) In terms of the Semantic-Differential, the experimental groups were significantly better than the control group, and the modelling condition was better than the social reinforcement condition.

(b) While there were no significant differences shown on self-acceptance, the predicted direction was supported in that the adjusted means of the experimental groups were higher than the control group.

(c) On the dimension of acceptance of others, the experimental groups were significantly better than the control group, and the social reinforcement variable was slightly ahead of the modelling variable.

(d) On the Tennessee Self-Concept Scale the experimental groups were significantly better than the control group on four scales (the total positive, self-criticism, personal self and social self). There were no significant differences among the groups on three scales (physical self, moral self and family self). However, on all scales the adjusted means revealed better scores consistently in favour of the experimental groups over the control group. On both of the scales (Total Positive, Self-Criticism) the social reinforcement condition gained higher scores on adjusted means than the control condition.

(e) In terms of ratings by external observers, it was found that in the case of an assessment immediately after treatment, the experimental groups did significantly better than the control group. In the case of an assessment using a recidivism index, there were no significant differences among all groups. However, the incidence of recidivism was slightly lower for the experimental groups than for the control group.

CHAPTER 13

ANALYSIS OF RESULTS FOR TRIAL II

The Personality Inventory

The Eysenck Personality Inventory was given prior to the commencement of the treatment in order to observe whether there were any differential characteristics among groups. The first two scales of this variable were also used in the covariance analysis. The aim in using this Inventory was to ascertain whether or not the groups were equivalent on those dimensions involved.

Table 45

Analysis of Variance for E.P.I. Variables For Trial II

Scale	Groups	DF	F ratio	Significance
Extraversion	X, Y, C	2:27	2.38	$P > .05$ (N.S.)
Neuroticism	X, Y, C	2:27	0.722	$P > .05$ (N.S.)
Lie	X, Y, C	2:27	1.464	$P > .05$ (N.S.)

($F: 2, 27 = 3.35$, $P < .05$)

Since the F ratios are all lower than the value (3.35) required for significance at the 5% level, the three scales proved non-significant. Therefore, in regard to personal characteristics the three groups were not biased and there is no evidence to support the fact that one group possessed an added advantage or disadvantage over any other group.

The Semantic Differential

The analysis of variance technique performed on the three

groups revealed significant differences among pre and post tests (Table 46). The analysis of covariance on the post test scores was most necessary to account for initial differences which, in this case, were in favour of the social reinforcement group (Group Y).

Table 46

Analysis of Pre and Post Test Scores on the S-D for Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	599.406	4.734	P < .05
		Within	27	126.613		
Post Test	ANOVA	Between	2	463.406	4.077	P < .05
		Within	27	113.65		
Post Test	ANCOVA	Between	2	510.363	11.536	P < .01
		Within	26	44.242		
1 month later	ANCOVA	Between	2	298.203	5.946	P < .01
		Within	26	50.146		
(F: 2, 27 = 3.35; 2, 26 = 3.37; P < .05)						

The table (Table 46) revealed a highly significant adjusted F value. This value revealed definite differences among the groups.

Table 47

Adjusted Means of Groups on S-D For Trial II

Groups	Unadjusted Means	Adjusted Means
X	111.399	118.091
Y	122.0	118.878
C	109.299	105.729

In terms of adjusted means on the S-D (Table 47) both of the experimental groups scored higher values than the control group. Between the two experimental groups the social reinforcement condition was slightly higher than the modelling condition.

Table 48

Adjusted Means for Scores One Month Later on the S-D for Trial II

Group	Unadjusted Means	Adjusted Means
X	109.70	117.19
Y	117.799	114.75
C	110.50	106.057

In an examination of the maintenance of treatment effects one month following the termination of treatment, the analysis of covariance which used the pre test scores as covariates revealed significant differences at the 0.01 level among the three groups (Table 46).

The adjusted means (Table 48) indicated that both of the experimental groups scored better than the control group. In this case, the modelling group did better than the social reinforcement group. Therefore, on the basis of this evidence, it may be concluded that the effects of treatment were maintained for four weeks after the conclusion of the experiment.

A t test was performed between the post test and "later" scores for each of the groups. These results are shown in the following table (Table 49).

Table 49

The t Test Between Post and Later Mean Scores for Group X, Group Y, and Group C on the S-D for Trial II

Group	Post Mean N = 10	Later Mean N = 10	t	P
Experimental X	111.4	109.7	0.495	N.S.
Experimental Y	122.	117.8	1.292	N.S.
Control C	109.3	110.5	0.901	N.S.

(t: 9 = 2.262, $P < .05$)

In both of the experimental groups and in the control group there was no significant difference between the post test score and the score obtained four weeks following treatment. This adds further support in the case of the experimental groups to the maintenance of effects in the short run after the conclusion of treatment.

Self-Acceptance

The Analysis of Variance for the pre test and the post test of the self-accpetance scale are shown in the table (Table 50). The Analysis of Covariance on the post test scores is also shown.

Table 50

Analysis of Pre and Post Test Scores on Self Acceptance for Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	110.218	2.128	N.S.
		Within	27	51.787		
Post Test	ANOVA	Between	2	57.625	2.154	N.S.
		Within	27	26.750		
Post Test	ANCOVA	Between	2	39.973	2.777	$P < 0.1$
		Within	26	14.394		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

The analysis of covariance revealed differences among the groups at the 0.1 level. This was confirmed by the adjusted means table (Table 51). Both of the experimental groups scored higher means than the control group, and the modelling condition did better than the social reinforcement condition.

Table 51

Adjusted Means of Groups on Self-Acceptance for Trial II

Groups	Unadjusted Means	Adjusted Means
X	57.099	58.031
Y	57.399	55.487
C	53.099	54.081

Acceptance of Others

In regard to the findings of the analyses for the acceptance of others scale, few differences were detected as the initial means were evenly spaced on this variable. All groups in this trial of the experiment seemed to have had problems with this scale. The findings are shown in the tables (Tables 52, 53).

Table 52

Analyses of Pre and Post Test Scores on Acceptance of Others for Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	57.625	2.835	N.S.
		Within	27	20.319		
Post Test	ANOVA	Between	2	36.125	1.848	N.S.
		Within	27	19.541		
Post Test	ANCOVA	Between	2	3.920	0.375	N.S.
		Within	26	10.431		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

It can be seen that in spite of a lack of significance, the adjusted means show differences in the predicted direction. The two experimental groups had higher means than the control group. The modelling group did slightly better than the social reinforcement group.

Table 53

Adjusted Means of Groups on Acceptance of Others For Trial II

Groups	Unadjusted Means	Adjusted Means
Experimental X	54.199	54.860
Experimental Y	56.199	54.331
Control C	52.399	53.607

The Tennessee Self-Concept Scale (TSCS)

The results from the TSCS did not show much differential among groups. While the scale is useful, it appeared somewhat tedious and beyond the tolerance of groups in this trial. Only the self-criticism scale revealed significance among groups by the Anova test. However, on three scales (Self-Criticism, Physical Self, and Family Self) the experimental groups did better than the control group in terms of adjusted means.

The Total Positive Scale of the TSCS

The analysis of variance of post test scores revealed no significance among the groups (Table 54).

Table 54

Analyses of Pre and Post Test Scores on the Total Positive Scale of the TSCS For Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 45	N.S.
		Within				
Post Test	ANOVA	Between	2	278.	0.294	N.S.
		Within	27	945.407		
Post Test	ANCOVA	Between	2	75.355	0.0878	N.S.
		Within	25	858.646		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

The ANCOVA of post test scores did not show significant differences. There appeared to be an improper match among the groups in the initial input (Table 55).

Table 55

Adjusted Means on the Total Positive Scale of the TSCS for Trial II

Groups	Unadjusted Means	Adjusted Means
Experimental X	300.399	303.569
Experimental Y	308.5	306.288
Control C	310.299	309.342

This reversal of effect in favour of the control group in regard to the adjusted mean could be accounted for in

terms of the initial lead on unadjusted means. The control group had the highest entering mean. This was reduced when adjusted along with the experimental group Y. Only the experimental group X showed an increase.

The Self-Criticism Sub-Scale of the TSCS

The tables show the results of the analysis of scores on self criticism (Tables 56, 57).

Table 56

Analyses of Pre and Post Test Scores on the Self-Criticism Sub-Scale of the TSCS for Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 45	N.S.
		Within				
Post Test	ANOVA	Between	2	37.299	2.649	$P<0.1$
		Within	27	14.078		
Post Test	ANCOVA	Between	2	14.879	1.152	N.S.
		Within	25	12.914		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

The analysis of variance on the post test scores revealed a significant difference among the groups. This difference was gained at the 0.1 level of significance.

While the analysis of covariance of means was not significant at the level required, the adjusted means were nevertheless ordered in the predicted direction. Both of the experimental groups were higher than the control group.

Table 57

Adjusted Means for Self-Criticism on TSCS
For Trial II

Groups	Unadjusted Means	Adjusted Means
Experimental X	34.699	34.956
Experimental Y	37.199	36.529
Control C	33.399	33.814

In this case (Table 57) the social reinforcement group gained a greater mean score than the modelling group.

The Physical Self Sub-Scale of the TSCS

The Physical Self Sub-Scale showed no significant differences among groups (Table 58).

Table 58

Analyses of Pre and Post Test Scores on
the Physical Self Sub-Scale of the
TSCS for Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 45	N.S.
		Within				
Post Test	ANOVA	Between	2	37.406	0.572	N.S.
		Within	27	65.414		
Post Test	ANCOVA	Between	2	21.125	0.316	N.S.
		Within	25	66.919		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

It should be noted that although there were no significant differences among groups, the adjusted means (Table 59) indicated differences among the groups in the predicted direction.

Table 59

Adjusted Means for Physical Self on the TSCS for Trial II

Groups	Unadjusted Means	Adjusted Means
Experimental X	63.199	63.670
Experimental Y	66.599	66.193
Control C	63.299	63.236

The Experimental groups scored higher than the Control group in terms of adjusted means. The social reinforcement group showed higher gains than the modelling group.

The Moral Self Sub-Scale of the TSCS

Both the analysis of variance and the analysis of covariance tables (Table 60) revealed no significant differences among the groups on moral self.

Table 60

Analyses of Pre and Post Test Scores
On the Moral Self Sub-Scale of the TSCS
On Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 45	N.S.
		Within				
Post Test	ANOVA	Between	2	54.938	0.996	N.S.
		Within	27	55.171		
Post Test	ANCOVA	Between	2	51.563	0.938	N.S.
		Within	25	54.974		

(F: 2, 27 = 3.35; 2, 25 = 3.38; P < .05)

In terms of unadjusted means (Table 61) the scores for the groups were not supportive of the predicted direction. The initial move for the control group was highest and this was maintained after adjustment.

The modelling group was slightly higher than the social reinforcement group on this dimension.

Table 61

Adjusted Means for Moral Self
on the TSCS for Trial II

Groups	Unadjusted Means	Adjusted Means
Experimental X	55.199	55.702
Experimental Y	54.399	53.833
Control C	58.799	58.865

The Personal Self Sub-Scale on the TSCS

The ANOVA and the ANCOVA of the post test scores on personal self (Table 62) revealed no significant differences among the groups on this scale. It seems that on this variable the control group received the highest initial score.

Table 62

Analyses of Pre and Post Test Scores on the Personal Self Sub-Scale of the TSCS on Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 45	N.S.
		Within				
Post Test	ANOVA	Between	2	29	0.485	N.S.
		Within	27	59.755		
Post Test	ANCOVA	Between	2	8.716	0.165	N.S.
		Within	25	52.948		

(F: 2, 27 = 3.35; 2, 25 = 3.38; P < .05)

In respect to the adjusted means (Table 63) the social reinforcement group gained highest scores, followed by the control group and then the modelling group.

Table 63

Adjusted Means for Personal Self on the TSCS
For Trial II

Groups	Unadjusted Means	Adjusted Means
Experimental X	60.799	61.670
Experimental Y	63.699	63.397
Control C	63.799	63.232

The Family Self Sub-Scale of the TSCS

The analyses (Table 64) revealed that there were no significant differences among the groups with or without initial differences ordered. Again, on this variable, it was noted that the control group possessed the highest score initially.

Table 64

Analyses of Pre and Post Test Scores
on the Family Self Sub-Scale of the TSCS
For Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 45	N.S.
		Within				
Post Test	ANOVA	Between	2	4.406	0.0501	N.S.
		Within	27	88.025		
Post Test	ANCOVA	Between	2	2.963	0.0329	N.S.
		Within	25	89.995		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

Notwithstanding the initial upset in scores, the adjusted means (Table 65) lent support to the prediction of greater gains in favour of the experimental groups over the control group.

Table 65

Adjusted Means for Family Self on the TSCS For Trial II

Groups	Unadjusted Means	Adjusted Means
Experimental X	60.699	61.244
Experimental Y	61.799	62.150
Control C	61.899	61.006

It should be observed that the social reinforcement group scored higher than the modelling group.

The Social Self Sub-Test of the TSCS

On the Social Self Sub-Scale of the TSCS there were no significant differences revealed (Table 66). The incoming score for the control group was highest, thus altering the initial assumption of no difference among groups.

Table 66

Analyses of Pre and Post Test Scores
On the Social Self Sub-Scale of the TSCS
For Trial II

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 45	N.S.
		Within				
Post Test	ANOVA	Between	2	10.844	0.245	N.S.
		Within	27	44.259		
Post Test	ANCOVA	Between	2	11.394	0.335	N.S.
		Within	25	34.041		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

The adjusted means table (Table 67) revealed that the experimental groups were not better than the control group. This result follows logically from the inequity among groups on the pre test.

Table 67

Adjusted Means for Social Self of the TSCS
For Trial II

Groups	Unadjusted Means	Adjusted Means
Experimental X	60.5	61.284
Experimental Y	62.	60.715
Control C	62.5	63.002

Ratings of External Observers

Ratings of observed behaviour of the three groups were made by three senior staff members immediately following treatment and one month following the termination of treatment (Tables 68, 69). Sign tests on these ratings showed significant differences among groups.

In regard to the ratings immediately following treatment, the sign test showed that both of the experimental groups made gains significant at the 0.02 level, while the control group showed a non-significant gain. The same finding was confirmed from the result of the gains of the groups one month following treatment. The effect of treatment was, therefore, maintained in the short run.

Table 68

Sign Tests on Ratings of Observed Behaviour Toward Self and Others Among Experimental Groups X and Y, and Control Group C, Immediately Following the Termination of Treatment, as Judged By Three Senior Staff Members

Group X Ss	Post Obs.	Group Y Ss	Post Obs.	Group C Ss	Post Obs.
1	+	1	+	1	+
2	+	2	-	2	+
3	+	3	+	3	+
4	+	4	+	4	-
5	+	5	+	5	+
6	+	6	+	6	+
7	+	7	+	7	+
8	+	8	+	8	-
9	+	9	+	9	+
10	-	10	+	10	+
X = 1		X = 1		X = 2	
N = 10		N = 10		N = 10	
P = .011		P = .011		P = .055	
P < .02		P < .02		P > .05	
Significant		Significant		N.S.	

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Table 69

Sign Tests on Ratings of Observed Behaviour Toward Self and Others Among Experimental Groups X and Y, and Control Group C, One Month Following The Termination of Treatment

Group X Ss	Obs. Later	Group Y Ss	Obs. Later	Group C Ss	Obs. Later
1	+	1	+	1	+
2	+	2	-	2	+
3	+	3	+	3	+
4	+	4	+	4	-
5	+	5	+	5	+
6	+	6	+	6	+
7	+	7	+	7	+
8	+	8	+	8	-
9	+	9	+	9	+
10	-	10	+	10	+
x = 1		x = 1		x = 2	
N = 10		N = 10		N = 10	
P = .011		P = .011		P = .055	
P < .02		P < .02		P > .05	
Significant		Significant		N.S.	

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Comparison of the Combined Experimental Groups Versus the Control Group

The results of comparing the combined experimental group and the control group lend support to the hypothesis that posit the experimental groups' superiority over the control group. The tests examined are the semantic differential post-test, the semantic differential one month after treatment, the Berger self-acceptance post-test, and the Berger Acceptance of Others post-test. The full Tennessee self-concept scale, given only after the completion of the treatment, did not prove significant; but the self-criticism sub-scale proved significant at the 10 percent level of probability. Since these analyses involved two groups the t test was employed.

This procedure was adopted in addition to the analyses of variance and covariance in order to see whether any "near misses with the latter techniques could have arisen because of small samples, as in the case of the non-significant results obtained for the "acceptance of others" scale and the TSCS scales. The decision to combine the two experimental groups could be justified by noting that the two treatments which these groups represent possess a fair degree of similarity. As a result of this feature very little additional information is gained, as the two suspect measures along with two other measures received only weak support. It will be noted that further analyses will not provide an alternative.

Semantic Differential with Combined Groups

The table (Table 70) shows the value of the t score for the post-test and the test one month later on the S-D. It will be seen that the combined experimental groups show a

significant differnece over the control group at the 10 percent level. A lower level of significance is reported in this case for two reasons. It is felt that in treatment of this nature which attempts to maintain a humanizing effect, general tests are not enough to tap subtle changes in growth in the short term. A 90% confidence level reported in this section is substantial and in terms of outcome of treatment can be accepted with respect. The second reason is based on the fact that no pre test results were taken into consideration in applying the t tests and, therefore, no correction was made of the possible uneven distribution at the beginning of the experiment. In spite of this initial error not accounted for, it is important to note the significance level attained.

Table 70

The t Test of Post Scores Comparing the Two Combined Experimental Groups with the Control Group for S-D, S/A and A/O, and the TSCS (Total Positive and Self-Criticism) for Trial II

Condition	Variable	Exp. Groups Mean N = 20	Control Group Mean N = 10	t Value	P (One-Tailed)
Post Test	Semantic Differential	112.2	109.3	1.35	P < 0.1
(1 month later)	Semantic Differential	113.75	110.5	1.33	P < 0.1
Post Test	Self-Acceptance	57.75	53.1	2.598	P < .05
Post Test	Acceptance-of-Others	55.20	52.4	1.47	P < 0.1
Post Test	TSCS - Total Positive	304.45	310.3	0.745	P > 0.1 (N.S.)
Post Test	TSCS - Self. Crit.	39.95	33.4	1.624	P < 0.1

(t: 28 - 1.701, P < .05; = 1.313, P < 0.1)

The data also revealed a significant difference between the two groups one month following treatment. Therefore, gains in treatment were maintained.

Self-Acceptance and Acceptance of Others With Combined Groups

The table (Table 70) showed that the combined experimental group on the self-acceptance scale did better over the control group than in the case of the semantic differential. It will also be observed that the self-acceptance scale gained significance at the .05 level while the acceptance of others scale did so at the 0.1 level. It seems that the experimental groups were able to make greater gains in self dimensions than in the other dimension, a factor which was observed during the course of treatment.

In the self-acceptance condition there was a significant difference at the .05 level in favour of the combined experimental group. It may appear that the response in treatment in terms of the "self" condition is easier to manage than the "other" condition, and that the "self" condition is more sensitive to assessment than the condition involving others.

The Tennessee Self-Concept Scale with Combined Groups

The total positive scale of the TSCS did not yield significant results on the t test. Apparently, the test is composed of 100 items and is somewhat lengthy. Sheer length of the test does seem to inhibit the youths of this age group, especially those with reading problems. It seems that in giving this scale, the researcher had to urge and reinforce subjects to complete on occasions. This problem

appeared with all the groups that attempted the scale so far. While the scale is written in a simple style and has gained generally positive reviews, there is a weakness in its complicated structure, as for example, the method of working from the right hand side of the answer sheet and proceeding towards the left. In addition the method of working every other question on the answer sheet and then retracing one's steps to complete the other 50% of the questions in the column leaves much to be desired. The scale possesses some unique qualities and ought to be seriously considered with adaptations as shown later in this section.

The results reveal that on the self-criticism subscale the t value for the combined experimental group and the control group showed significant differences at the 0.1 level (Table 70). There was no significant difference between the combined experimental groups and the control group on the total positive scale of the TSCS, in which the control group gained a higher mean.

Further analysis, as in the first trial, will be done with the use of the analysis of variance and the analysis of covariance techniques.

Summary of Results on Trial II

The results for Trial II are summarised briefly. With five out of the six instruments there were significant differences among groups. Niether one of the experimental group gained ascendency over the other. The following findings are presented.

(a) By use of the analysis of covariance technique, significant differences were shown among groups on the

Semantic Differential. Both of the experimental groups were better on adjusted means than the control group, and social reinforcement had a higher mean than modelling, significant differences were maintained one month following treatment.

(b) In terms of self-acceptance the analyses revealed significant differences among groups. Both of the experimental groups scored higher than the control group, and the modelling group was foremost.

(c) In terms of acceptance of others scale, initial unevenness among groups was observed. Therefore, there were no significant differences among groups. Members of Trial II had consistent difficulty in assessment based upon their relationship with others, and this was supported during treatment sessions where resistance towards others was expressed frequently. In terms of adjusted means, both of the experimental groups did better than the control group, and the modelling group exceeded the social reinforcement group.

(d) All scales in the Tennessee Self Concept Scale revealed no significant differences among groups, except the Self-Criticism Scale which showed a significant difference among the post test scores. The adjusted means of the Self-Criticism sub-scale indicated a difference among groups in the predicted direction, with social reinforcement higher than modelling. In terms of the adjusted means, three of the seven scales (Self-Criticism, Physical Self, and Family Self) showed significant differences among groups, and the social reinforcement group was better in each of these sub-scales than the modelling group.

(e) Ratings following treatment were in favour of both experimental groups. This finding was maintained in the short run. Both of the experimental groups were better than the control group.

(f) When the experimental groups were combined and tested against the control group there were significant differences, but mainly at the 0.1 level, among groups on the Semantic Differential, the Self-Acceptance Scale, and the Acceptance of Others scale. There were no significant differences among groups on the Tennessee Self-Concept scale. Therefore, weak significant differences were received on the "self" measures and not on the measure dealing with personality.

CHAPTER 14

ANALYSIS OF RESULTS FOR TRIAL III

Introduction

The trial in the third stage consisted of two experimental groups and a no contact control group. It followed the same approaches as in the former two trials. One exception involved the control group in regard to the Tennessee Self Concept scale. Since the control group was not available for the final day when the post test self concept scale was given, the data for the control group on this variable was gained by using that from the 1974 sample. Consequently, the experimental groups were tested against the control group of the previous year. Since the control sample and the experimental groups were from the same institution, but a year apart, it was assumed that this adjustment would fulfill the conditions enunciated by the experiment.

Another characteristic of this trial which is similar to the previous trial is the pre test variables used in the covariance analysis on the Tennessee Self Concept Scale. Since the TSCS was given only after the termination of treatment, it was not used as a pre test variable. Instead, two scales of the EPI were used. These measures were the Extraversion Scale and the Neuroticism Scale.

A study of the personality inventory is made in the first place to see whether the groups were generally equal in strength on this variable. Then ANOVA and ANCOVA analyses were performed on each variable in terms of examining the post test scores for significant differences among groups,

and as such the nature of the effectiveness of the treatment. Only in one instance was a measure one month later considered. This was in the case of the S-D. Two observation measures for immediately after treatment and for recidivism three months after treatment were collected. These last measures were used to ascertain the effect of the treatment by external ratings.

The Personality Inventory

The Eysenck Personality Inventory was given to ascertain that there were no differences among the groups initially. In each case there were no significant differences among the groups (Table 71).

Table 71

Analysis of Variance of EPI Sub-Tests For Trial III

Variable	Groups	DF	F Ratio	Value of P	Significance
Extraversion	X, Y, C	2, 27	0.831	0.446	P > .05 (N.S.)
Neuroticism	X, Y, C	2, 27	0.814	0.454	P > .05 (N.S.)
Lie Scale	X, Y, C	2, 27	0.316		P > .05 (N.S.)

The Semantic Differential

The analysis of variance on the S-D (Table 72) revealed no significant differences among groups at the 0.5 level. Therefore, very little difference existed among groups before the commencement of treatment.

The ANOVA of post test scores showed no significant differences among groups. Whatever initial differences that

existed were not taken into account.

In the analysis of covariance (Table 72) an adjusted F of 5.912 revealed a significance better than the 0.01 level. Therefore, significant differences emerged among the three groups.

Table 72

Analyses of Pre and Post Test Scores on the S-D For Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	140.656	0.623	N.S.
		Within	27	225.859		
Post Test	ANOVA	Between	2	213.687	1.230	N.S.
		Within	27	173.704		
Post Test	ANCOVA	Between	2	363.866	5.912	$P < .01$
		Within	26	61.543		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

On further examination of the adjusted means (Table 73) it was observed that both of the experimental groups exceeded the control group. The modelling group gained a higher mean score than the social reinforcement group.

Table 73

Adjusted Means of Groups on S-D
For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	115.899	118.961
Experimental Y	116.299	114.449
Control C	108.099	106.889

S-D Scores, One Month Later

An ANOVA of the "later" scores on S-D revealed no significant differences among groups (Table 74). When the pre scores were used as covariates, the "later" scores showed a significant difference among groups at the 0.05 level. The adjusted means for the scores, one month later (Table 75) showed that both of the experimental groups maintained a lead over the control group and that the social reinforcement group was better than the modelling group.

Table 74

Analyses of "Later Scores" on the S-D
For Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	140.656	0.623	N.S.
		Within	27	225.859		
Later Test	ANOVA	Between	2	416.125	1.522	N.S.
		Within	27	273.375		
Later Test	ANCOVA	Between	2	420.832	4.214	$P < .05$
		Within	26	99.857		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

Table 75

Adjusted Means of Groups on S-D "One Month Later" Scores on Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	110.5	114.309
Experimental Y	118.299	115.997
Control C	105.5	103.994

A further check was made on "later" scores. Each group was tested for differences between post test scores and later mean scores by a t test for correlated samples. The results are shown in the table (Table 76).

Table 76

The t Test Between Post and Later Mean Scores for Group X, Group Y and Group C on the S-D For Trial III

Group	Post Mean N = 10	Later Mean N = 10	t Value	P
Experimental X	115.9	110.5	2.211	N.S.
Experimental Y	116.3	118.3	0.694	N.S.
Control C	108.1	105.5	0.817	N.S.

(t: 9 = 2.262, $P < .05$)

In all three groups there was no significant difference between post test and "later" mean. Therefore, in the case of the experimental groups, the effects of the treatment were maintained in the short run.

Self-Acceptance

The analysis of groups in regard to the self-acceptance scale will be presented first. This will be followed by the examination of data for the second scale, that of the acceptance of others.

An analysis of pre test scores on self-acceptance revealed no significant differences among groups. The post test means showed a significant difference among groups at the .05 level (Table 77).

Table 77

Analyses of Pre and Post Test Means on Self-Acceptance for Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	89.219	2.055	N.S.
		Within	27	43.419		
Post Test	ANOVA	Between	2	102.937	3.186	$P < .05$
		Within	27	32.31		
Post Test	ANCOVA	Between	2	131.117	6.009	$P < .01$
		Within	26	21.821		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

The ANCOVA revealed that the groups were highly significant in differences at the .01 level (Table 77). In terms of self-acceptance the groups differed widely after treatment.

An examination of the adjusted means (Table 78) indicated that the experimental groups were better than the control group. The social reinforcement group gained a

higher mean score than the modelling group.

Table 78

Adjusted Means of Groups on Self-Acceptance For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	52.899	54.634
Experimental Y	56.5	55.888
Control C	50.099	48.978

Acceptance of Others

The analysis of pre test scores on Acceptance of Others (Table 79) revealed no significance among groups.

The post test scores were tested by the ANOVA (Table 79) and gained a significance of .01 for differences among groups. This finding was gained without the control for initial variation.

Table 79

Analyses of Pre and Post Test Scores on Acceptance of Others for Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	0.625	.0197	N.S.
		Within	27	31.694		
Post Test	ANOVA	Between	2	202.781	6.111	P < .01
		Within	27	33.183		
Post Test	ANCOVA	Between	2	185.875	12.021	P < .01
		Within	26	15.463		

(F: 2, 27 = 3.35; 2, 26 = 3.37; P < .05)

The analysis of covariance indicated a very significant difference among groups (Table 79). Both experimental groups possessed adjusted means greater than the mean of the control group (Table 80). The social reinforcement group was better than the modelling group on this scale.

Table 80

Adjusted Means of Groups on Acceptance of Others For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	53.699	53.725
Experimental Y	57.899	57.697
Control C	48.899	49.077

The Tennessee Self-Concept Scale (TSCS)

The analysis of this scale involves the use of pre test scores. Since the scale was not used as a pre test, another test was utilised in its place. The Eysenck Scales of Extraversion and Neuroticism were two covariates used. A test of the covariates was performed as in previous examples in order to ascertain that there were no marked differences among groups on the personality dimension before the commencement of treatment.

The analysis of variance of scores on the extraversion scale revealed no significant differences among the three groups (Table 71). Therefore, the two experimental groups and the control group were unbiased with respect to this variable. The analysis of the scale of neuroticism

(Table 71) produced likewise results, thus showing that the groups were not significantly different on this variable.

The Total Positive Scale of the TSCS

The analysis of variance on the post test scores of the total positive scale indicated no significant differences among the groups (Table 81).

Table 81

Analyses of Pre and Post Test Scores on the Total Positive Scale of the TSCS For Trial III

Test	Analysis	Source of Variation	Df	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 71	N.S.
		Within				
Post Test	ANOVA	Between	2	226.	0.423	N.S.
		Within	27	534.296		
Post Test	ANCOVA	Between	2	0.145	0.291	N.S.
		Within	25	0.497		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

The analysis of covariance for the total positive scale (Table 81) also revealed no significant differences among the groups. The adjusted means (Table 82) showed that the experimental X group was foremost and better than experimental Y. The control group made gains in excess of experimental Y contrary to prediction.

Table 82

Adjusted Means of Groups on the Total Positive Scale of the TSCS for Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	294.5	293.481
Experimental Y	288.599	285.822
Control C	285.099	288.896

The Self-Criticism Sub-Test of the TSCS

There were no significant differences among groups on post test scores on the self criticism sub-scale (Table 83). In like manner, the analysis of covariance established no significant difference among groups (Table 83).

Table 83

Analyses of Pre and Post Test Scores on the Self Criticism Sub-Scale For Trial III

Test	Analysis	Source of Variance	DF	M.S.	F	p
Pre Test	ANOVA	Between	--	--	Table 71	N.S.
		Within				
Post Test	ANOVA	Between	2	3.031	.0897	N.S.
		Within	27	33.782		
Post Test	ANCOVA	Between	2	17.824	.571	N.S.
		Within	25	31.228		

(F: 2, 27 = 3.35; 2, 25 = 3.38; P < .05

Initial differences did play a part in the unusual results in that the control group possessed the highest initial mean score. In terms of adjusted means (Table 84) the modelling group gained a higher score than the social reinforcement group.

Table 84

Adjusted Means of Groups on Self-Criticism For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	33.099	33.177
Experimental Y	32.199	31.283
Control C	33.199	34.040

The Physical Self Sub-Test of the TSCS

On the physical self sub-test no significant differences emerged in terms of the analyses of variance and covariance (Table 85).

Table 85

Analyses of Pre and Post Test Scores on the Physical Self Sub-Scale for Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 71	N.S.
		Within				
Post Test	ANOVA	Between	2	21.406	0.45	N.S.
		Within	27	47.562		
Post Test	ANCOVA	Between	2	35.536	0.718	N.S.
		Within	25	49.486		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

Since the initial mean scores of the groups were ordered in favour of the control group, the adjusted means were affected (Table 86). However, the adjusted data revealed that the modelling group scored higher than the social reinforcement group.

Table 86

Adjusted Means of Groups on Physical Self For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	62.599	62.552
Experimental Y	60.799	60.282
Control C	63.699	64.265

The Moral Self Sub-Scale of the TSCS

The moral self sub-scale showed that there were no significant differences among the groups in terms of the analysis of variance and the analysis of covariance (Table 87).

In terms of adjusted means (Table 88) the control group was highest, and it did as well possess the highest initial score. However, the modelling group gained a higher score than the social reinforcement group.

Table 87

Analysis of Pre and Post Test Scores
on the Moral Self Sub-Scale
For Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 71	N.S.
		Within				
Post Test	ANOVA	Between	2	42.437	1.421	N.S.
		Within	27	29.856		
Post Test	ANCOVA	Between	2	50.162	1.838	N.S.
		Within	25	27.285		

(F: 2, 27 = 3.35; 2, 25 = 3.38; P < .05)

Table 88

Adjusted Means of Groups on Moral Self
For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	54.399	53.978
Experimental Y	51.299	51.110
Control C	55.199	55.812

The Personal Self Sub-Scale of the TSCS

There were no significant differences among groups on the personal self sub-scale. Both the analysis of variance and the analysis of covariance (Table 89) indicated this

finding.

Table 89

Analyses of Pre and Post Test Scores
On the Personal Self Sub-Scale
For Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 71	N.S.
		Within				
Post Test	ANOVA	Between	2	48.5	0.916	N.S.
		Within	27	52.951		
Post Test	ANCOVA	Between	2	19.723	0.377	N.S.
		Within	25	52.239		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

In terms of the adjusted means (Table 90) the prediction of direction of gain was supported. Both of the experimental groups did better than the control group. Preference for one of the experimental groups fell on the social reinforcement group which gained a slightly higher score than the modelling group.

Table 90

Adjusted Means of Groups on Personal Self
For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	58.399	58.037
Experimental Y	58.799	58.336
Control C	54.799	55.627

The Family Self Sub-Scale of the TSCS

The Family Self Sub-Scale revealed no significant difference among groups (Table 91). Both the analyses of variance and covariance confirmed this finding.

Table 91

Analyses of Pre and Post Test Scores on the Family Self Sub-Scale For Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 71	N.S.
		Within				
Post Test	ANOVA	Between	2	11.437	0.308	N.S.
		Within	27	37.159		
Post Test	ANCOVA	Between	2	0.634	0.0176	N.S.
		Within	25	35.969		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

The adjusted means table (Table 92) revealed that the experimental groups (X and Y) were higher than the control group. The table further indicated that the social reinforcement group gained a higher score than the modelling group.

Table 92

Adjusted Means of Groups on Family Self For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	59.399	59.287
Experimental Y	60.099	59.350
Control C	58.	58.862

The Social Self Sub-Scale of the TSCS

The social self sub-scale revealed no significant difference among groups in terms of the ANOVA and the ANCOVA (Table 93).

Table 93

Analyses of Pre and Post Test Scores on the Social Self Sub-Scale For Trial III

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	--	--	Table 71	N.S.
		Within				
Post Test	ANOVA	Between	2	125.062	1.609	N.S.
		Within	27	77.711		
Post Test	ANCOVA	Between	2	84.513	1.055	N.S.
		Within	25	80.115		

(F: 2, 27 = 3.35; 2, 25 = 3.38; $P < .05$)

The adjusted means (Table 94) showed that both of the experimental groups scored higher values than the control group. It was further seen that the modelling condition gained a higher score than the social reinforcement condition.

Table 94

Adjusted Means of Groups on Social Self For Trial III

Groups	Unadjusted Means	Adjusted Means
Experimental X	59.699	59.606
Experimental Y	57.599	56.875
Control C	52.799	53.619

Ratings of External Observers on Trial III

Three senior members of staff made ratings of observed behaviour of clients from all the groups. Ratings were given immediately after treatment and on the basis of recidivism three months following the conclusion of treatment (Tables 95, 96).

The sign test was performed on the two sets of ratings and significant differences among groups emerged.

On the ratings immediately following treatment, both of the experimental groups did better than the control group. The modelling group gained a significant level of 0.06 while the social reinforcement group gained 0.02. Thus, the social reinforcement group excelled the modelling group.

In regard to ratings on recidivism three months following treatment, gains were maintained by the experimental

Table 95

Sign Tests on Ratings of Observed Behaviour Towards Self and Others Among the Experimental Groups X, Y and the Control C, Immediately Following the Termination of Treatment

Group X Ss	Post Obs.	Group Y Ss	Post Obs.	Group C Ss	Post Obs.
1	+	1	+	1	+
2	+	2	+	2	+
3	-	3	+	3	+
4	+	4	+	4	-
5	-	5	+	5	-
6	+	6	-	6	+
7	+	7	+	7	-
8	+	8	+	8	-
9	+	9	+	9	-
10	+	10	+	10	+
X = 2		X = 1		X = 5	
N = 10		N = 10		N = 10	
P = .055		P = .011		P = .623	
P < .06		P < .02		P > .10	
Significant		Significant		N.S.	

Trial III - N.B. Youth Training Centre (1975).

group Y over the control group. Experimental group X was not significant. Therefore, experimental group Y was superior to experimental group X. The social reinforcement group was the only one that showed gains.

Table 96

Sign Tests on Ratings of Observed Behaviour Towards Self and Others Among the Experimental Groups X, Y and the Control C, Three Months Following the Termination of Treatment (Ratings on the basis of Recidivism).

Group X Ss	Obs. Later	Group Y Ss	Obs. Later	Group C Ss	Obs. Later
1	+	1	-	1	-
2	-	2	+	2	+
3	-	3	+	3	+
4	+	4	+	4	+
5	+	5	+	5	-
6	-	6	+	6	+
7	-	7	-	7	-
8	+	8	+	8	+
9	+	9	+	9	+
10	+	10	+	10	-
X = 4		X = 2		X = 4	
N = 10		N = 10		N = 10	
P = .377		P = .055		P = .377	
P > .10		P < .05		P > .10	
N.S.		Significant		N.S.	

Trial III - N.B. Youth Training Centre (1975).

Summary of Results on Trial III

In summary, four out of five variables showed significance among the groups. The variable that showed no significance was the self-concept scale. The social reinforcement group, on the whole, was shown to yield slightly higher scores than the modelling group. The following findings emerged:

(a) In terms of the S-D significant differences emerged among the groups by the use of the analysis of covariance. The experimental groups were better than the control group, and the modelling condition excelled the social reinforcement condition.

(b) The scores on the S-D one month later supported the findings of the maintenance of treatment effects. The experimental groups were better than the control group, but the social reinforcement group gained higher scores than the modelling group.

(c) In terms of self-acceptance, there were significant differences among the groups. The experimental groups were better than the control group, and the social reinforcement condition excelled the modelling condition.

(d) In terms of acceptance of others, there were significant differences among the groups. The experimental groups were better than the control group, and the social reinforcement group excelled the modelling group.

(e) In the ratings on observed behaviour immediately following treatment, the experimental groups showed significant differences. The experimental groups were better than the control group, and social reinforcement excelled

modelling. On the ratings involving recidivism three months after treatment, only the social reinforcement group showed gains over the control group. The modelling group did not gain significance on this variable.

(f) All sub-scales of the TSCS did not show significance among the groups. Only in three sub-scales (Personal Self, Family Self, and Social Self) did the experimental groups make gains over the control group in terms of adjusted means. In two of the sub-scales the social reinforcement group did better than the modelling group, and in the third scale the reverse was accomplished. It seems that the TSCS has too complex an organizational structure to gain the best out of the respondent.

CHAPTER 15

ANALYSIS OF RESULTS FOR TRIAL IV

Introduction

The fourth trial consisted of two experimental groups and a control group. It followed the same approaches as previous trials but an additional variable was added. This was the Group Analysis Scale of Self and Others (GASSO), an instrument involving three sub-scales in which the subject rates himself and his progress on a scale of one to nine. This scale was given after the first three weeks (Pre) of treatment, after six weeks (Post) at the conclusion of treatment, and one month after the conclusion of treatment (Later). Data from this scale will be presented in graphical form to show the pattern of growth by the experimental groups from stage to stage.

The first analysis will be the analysis of variance of the personality variable. The second will be the ANCOVA of all the variables of self and others. The third analysis will be the t test for post and later scores. The fourth analysis will be the ANCOVA for the Pre and Later scores. The fifth analysis will be the ANCOVA for the group analysis scale. The sixth analysis will be the sign test for directional advantage of the experimental groups over the control group on the effectiveness of treatment.

It must be underscored that in this and the following trial it was decided to use the group analysis scale to see

if the measurement of developmental outcomes of treatment could be directly ascertained. It was hoped that the measure would be simple for subjects to understand as well as intrinsic in nature as over against an external measure which is general in purpose. Therefore, in addition to the measures used in the previous trials, it was believed that the new measure could be used to improve the assessment procedures and to facilitate comparisons.

There was another change in instrumentation. The Tennessee Self Concept Scale appeared too long and complicated in structure for the delinquent subjects at the Training School. The Examiners had to explain and interpret a number of procedures and statements for subjects. Both the reading level and the learning level of subjects were drawbacks to a proper effort at the instrument. The instrument was replaced by the Piers-Harris Self-Concept Scale (PSCS), one generally similar in purpose but much less extensive and very simple in terms of language. The PSCS is composed of three sub-tests and the total scale, adapted for the present research.

The Personality Inventory

The analysis of variance of the EPI sub-tests (Table 97) showed no significant difference among groups. On the basis of personality characteristics, the groups appeared to be randomly allocated. Therefore, Experimental group X, Experimental group Y, and Control group C did not possess any initial advantage on this variable.

Table 97

ANOVA of EPI Sub-Tests for Trial IV

Variable	Groups	DF	F Ratio	P < .05	Significance
Extraversion	X, Y, C	2, 27	0.889	3.35	N.S.
Neuroticism	X, Y, C	2, 27	1.998		N.S.
Lie Scale	X, Y, C	2, 27	1.830		N.S.

The Semantic Differential

An analysis of the pre test scores on S-D (Table 98) revealed no significant differences among the groups. When the post test scores were analyzed, no significant differences among groups emerged.

Table 98

Analyses of Pre and Post Test Scores on the S-D for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	542.533	3.026	N.S.
		Within	27	179.3		
Post Test	ANOVA	Between	2	277.133	1.498	N.S.
		Within	27	181.593		
Post Test	ANCOVA	Between	2	60.270	1.114	N.S.
		Within	26	54.095		

(F: 2, 27 = 3.35; 2, 26 = 3.37; P < .05)

The analysis of covariance of the post test scores also revealed no significant differences among the groups. However, the adjusted means table (Table 99) indicated that both of the experimental groups scored higher than the control group and each of the experimental groups was similar to the other.

Table 99

Adjusted Means of Groups on S-D
For Trial IV

Groups	Unadjusted Means	Adjusted Means
Experimental X	110.	117.196
Experimental Y	120.2	117.196
Control C	117.0	112.807

Self-Acceptance

An analysis of variance on pre test scores on self-acceptance (Table 100) indicated that there were no significant differences among means for the three groups in the experiment. An analysis of the post test scores revealed no significant differences as well.

Table 100

Analysis of Pre and Post Test Scores on Self-Acceptance for Trial IV

Test	Analysis	Source of Variance	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	112.906	1.623	N.S.
		Within	27	69.558		
Post Test	ANOVA	Between	2	41.625	0.558	N.S.
		Within	27	74.602		
Post Test	ANCOVA	Between	2	173.609	4.427	$P < .05$
		Within	26	39.212		

(F: 2, 27 = 3135; 2, 26 = 3.37; $P < .05$)

With the application of the ANCOVA on post test scores, a significant difference among means of groups was found. It was shown (Table 101) that both of the experimental groups (X and Y) were higher than the Control group C. The social reinforcement group gained a higher score than the modelling group.

Table 101

Adjusted Means of Groups on Self-Acceptance For Trial IV

Groups	Unadjusted Means	Adjusted Means
Experimental X	55.4	55.934
Experimental Y	58.1	60.235
Control C	54.1	51.431

Acceptance of Others

On the analysis of variance of pre test scores on acceptance of others (Table 102) differences were significant among groups. On the analysis of post test scores there were no significant differences.

Table 102

Analyses of Pre and Post Test Scores on Acceptance of Others for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	224.938	3.553	$P < .05$
		Within	27	63.300		
Post Test	ANOVA	Between	2	110.844	1.888	N.S.
		Within	27	58.715		
Post Test	ANCOVA	Between	2	190.236	6.851	$P < .05$
		Within	26	27.767		

(F: 2, 27 = 3135; 2, 26 = 3.37; $P < .05$)

When the initial differences were taken into account by the ANCOVA, the post test scores revealed differences among groups. An examination of the adjusted scores (Table 103) showed findings in the predicted direction. Both of the experimental groups were higher than the control group, and the social reinforcement group did better than the modelling group.

Table 103

Adjusted Means of Groups on Acceptance of Others For Trial IV

Groups	Unadjusted Means	Adjusted Means
Experimental X	53.299	56.901
Experimental Y	58.799	58.279
Control C	52.799	49.72

The Piers-Harris Self-Concept Scale (PSCS)

In this analysis the original six sub-scales of the PSCS are grouped into three sub-scales. Therefore, the analysis involves the three sub-scales and the total scale.

Sub-Scale I: Behaviour Plus Anxiety (Factors I and IV)

On the behaviour sub-scale of the PSCS the pre scores (Table 104) revealed no significant differences among groups. This finding was repeated for the post tests.

Table 104

Analyses of Pre and Post Test Scores on Sub-Scale I (Behaviour...) of the PSCS for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	20.799	0.602	N.S.
		Within	27	34.545		
Post Test	ANOVA	Between	2	24.297	0.761	N.S.
		Within	27	31.934		
Post Test	ANCOVA	Between	2	11.703	1.234	N.S.
		Within	26	9.481		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

The ANCOVA of post tests on the behaviour sub-scale revealed no significant differences among groups. However, the adjusted means (Table 105) revealed that both of the experimental groups were higher than the control, and that the social reinforcement condition was ahead of the modelling condition.

Table 105

Adjusted Means of Groups on Sub-Scale 1

Groups	Unadjusted Means	Adjusted Means
Experimental X	19.899	21.199
Experimental Y	22.599	21.625
Control C	19.899	19.575

Sub-Scale 2: Intellectual and Social Status Plus Popularity (Factors II and V)

The pre test scores on the Intellectual and Social Status sub-scale (Table 106) showed no significant differences among the three groups. This was also shown for the post test scores on the scale.

Table 106

Analysis of Pre and Post Test Scores on Sub-Scale 2 (Intellectual...) of the PSCS For Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	29.232	1.139	N.S.
		Within	27	25.663		
Post Test	ANOVA	Between	2	14.232	1.581	N.S.
		Within	27	9.0001		
Post Test	ANCOVA	Between	2	11.481	2.721	$P < 0.1$
		Within	26	4.219		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

The ANCOVA of post test scores on "Intellectual and Social Status" revealed a significant difference among groups. Further examination (Table 107) indicated that both of the experimental groups were higher than the control group, and that the social reinforcement group was higher than the modelling group.

Table 107

Adjusted Means of Groups on Sub-Scale 2

Groups	Unadjusted Means	Adjusted Means
Experimental X	19.	19.863
Experimental Y	20.899	20.403
Control C	18.699	18.334

Sub-Scale 3: Physical Appearance and Attributes Plus Happiness and Satisfaction (Factors III and VI)

The analysis of pre test scores on "Physical Appearance and Attributes..." sub-scale (Table 108) revealed no significant difference among groups at the .05 level. It should be noted that the F ratio was fairly large.

The analysis of post test scores on sub-scale 3 revealed no significant difference among groups as well.

Table 108

Analyses of Pre and Post Tests on the Sub-Scale 3 (Physical Appearance...) of the PSCS for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	29.633	2.051	N.S.
		Within	27	14.448		
Post Test	ANOVA	Between	2	1.232	0.997	N.S.
		Within	27	12.359		
Post Test	ANCOVA	Between	2	11.429	1.822	N.S.
		Within	26	6.272		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

Even the ANCOVA of post test scores showed no significant differences among groups on this variable. However, the adjusted means (Table 109) indicated that both of the experimental groups were higher than the control group, and the modelling group had the advantage over the social reinforcement group.

Table 109

Adjusted Means of Groups on Sub-Scale 3

Groups	Unadjusted Means	Adjusted Means
Experimental X	16.199	17.479
Experimental Y	16.5	15.596
Control C	15.799	15.425

Total Scale: PSCS (Factors I to VI)

On the total scale of the PSCS (Table 110) the analysis revealed no significant difference among groups. The analysis of post test scores showed no significant differences among the groups.

The ANCOVA of post test scores indicated no significant differences among groups, but the F ratio of 2.230 was close to the .10 level acceptable as an alternative. The value could be regarded as being barely adequate.

Table 110

Analyses of Pre and Post Test Scores on the Total Scale of the PSCS for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	235.898	1.587	N.S.
		Within	27	148.656		
Post Test	ANOVA	Between	2	93.063	0.858	N.S.
		Within	27	108.421		
Post Test	ANCOVA	Between	2	87.311	2.330	$P<0.11$
		Within	26	37.474		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

Table 111

Adjusted Means of Groups on Total Scale of the PSCS for Trial IV

Groups	Unadjusted Means	Adjusted Means
Experimental X	55.099	58.936
Experimental Y	60.	57.419
Control C	54.399	53.144

An examination of the adjusted means (Table 111) revealed that the experimental groups were better than the control group. In addition, the modelling group made a higher score than the social reinforcement group.

Comparison of Post and "Later" Scores in Trial IV

In this trial a comparison was made of post and later scores on all variables. The purpose was to ascertain the fact of no difference between the two testing times, and thereby to support the prediction regarding the maintenance of treatment effects in the experimental groups and no growth in the control group.

The t test for correlated data is shown for the experimental X group (Table 112), for the experimental Y group (Table 113) and for the control group (Table 114). On the whole, the majority of the variables in the experimental groups showed no significance. All the variables in the control group showed practically no change. Since the t tests are largely inconclusive in showing whether the

Table 112

The t Tests for Post and Later Scores With all Variables for Experimental X

Instruments	N	Mean Post	Mean Later	t	P
S-D	10	101.5	107.2	0.561	N.S.
Berger S/A	10	55.4	54.2	0.706	N.S.
Berger A/O	10	53.3	52.1	1.474	N.S.
PSCS I	10	19.9	18.9	1.860	N.S.
PSCS II	10	19.0	17.9	1.877	N.S.
PSCS III	10	16.2	14.7	3.142	Significant
PSCS Total	10	55.1	51.5	3.342	Significant

(t: 9 = 2.262, P < .05)

Youth Training Centre, 1976

Table 113

The t Tests for Post and Later Scores With All Variables for Experimental Y

Instruments	N	Mean Post	Mean Later	t	P
S-D	10	120.2	120.0	0.156	N.S.
Berger S/A	10	58.1	52.9	3.375	Significant
Berger A/O	10	58.8	55.1	0.031	Significant
PSCS I	10	22.6	22.8	0.287	N.S.
PSCS II	10	20.9	19.0	3.612	Significant
PSCS III	10	16.5	16.7	1.000	N.S.
PSCS Total	10	60.0	58.5	2.133	N.S.

(t: 9 = 2.262, P < .05)

Youth Training Centre, 1976

Table 114

The t Tests for Post and Later Scores
With All Variables for Control C

Instruments	N	Mean Post	Mean Later	t	P
S-D	10	117.0	114.1	1.363	N.S.
Berger S/A	10	54.1	53.3	0.285	N.S.
Berger A/O	10	52.8	52.5	0.130	N.S.
PSCS I	10	19.9	20.3	0.472	N.S.
PSCS II	10	18.7	18.1	0.854	N.S.
PSCS III	10	15.8	16.4	0.619	N.S.
PSCS Total	10	54.4	54.8	0.190	N.S.

(t: 9 = 2.262, P < .05)

Youth Training Centre, 1976

experimental groups were better than the control group four weeks after the termination of treatment, another analysis will be performed. The analysis of covariance of "Later" scores, using pre scores as covariates, will be applied to demonstrate that the experimental groups would maintain their superiority over the control group in the period following the conclusion of treatment.

S-D Scores, One Month Later

An analysis of variance of the "later" scores on S-D (Table 115) revealed no significant differences among groups. Using the pre-test scores as covariates, the "later" scores showed no significant differences among the three conditions at the 0.05 level. The adjusted means for the scores one month later showed that each of the experimental groups was better than the control group with the social reinforcement group showing a slightly higher mean than the modelling group. Thus, on the basis of the S-D the effects of treatment were maintained as the experimental groups continued to be better than the controls.

Table 115

Analysis of "Later" Scores on the S-D
For Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	2	542.533	3.026	N.S.
		Within	27	179.296		
Later	ANOVA	Between	2	378.433	1.815	N.S.
		Within	27	308.407		
Later	ANCOVA	Between	2	132.74	1.74	N.S.
		Within	26	76.278		

(F: 2, 27 = 3.35; 2, 26 = 3.37; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	107.7	115.045
Experimental Y	120	116.934
Control C	114.1	109.82

Self-Acceptance, One Month Later

The analysis of covariance of S/A scores (Table 116) revealed no significant differences among groups one month later. On the basis of adjusted means it was shown that each of the experimental conditions was better than the control condition while the social reinforcement condition (Y) was slightly ahead of the modelling condition (X).

Table 116

Analysis of "Later" Scores on S/A
For Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	2	112.933	1.624	N.S.
		Within	27	69.555		
Later	ANOVA	Between	2	4.433	0.073	N.S.
		Within	27	60.615		
Later	ANCOVA	Between	2	20.535	0.411	N.S.
		Within	26	50.015		

(F: 2, 27 = 3.35; 2, 26 = 3.37; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	54.2	54.51
Experimental Y	52.9	54.141
Control C	53.3	51.748

Acceptance of Others, One Month Later

In terms of the pre scores, the ANCOVA of later scores showed that there were no significant differences among the three conditions (Table 117). However, when the adjusted means were examined, it was seen that the experimental groups were ahead of the control group. The social reinforcement group was very slightly better than the modelling group on this variable.

Table 117

Analysis of "Later" Scores on A/O
For Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	2	223.033	3.517	N.S.
		Within	27	63.4		
Later	ANOVA	Between	2	26.53	0.563	N.S.
		Within	27	47.12		
Later	ANCOVA	Between	2	54.251	1.608	N.S.
		Within	26	33.738		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	52.1	54.486
Experimental Y	55.1	54.844
Control C	52.5	50.37

The Piers-Harris Self Concept Scale, One Month Later

The "later" scores on the PSCS showed no significant differences among the three conditions (Table 118). In terms of the adjusted means each experimental condition made a higher score than the control condition, and the social reinforcement condition was better than the modelling condition.

Table 118

Analysis of "Later" Scores on PSCS
For Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	2	235.9	1.587	N.S.
		Within	27	148.6		
Later	ANOVA	Between	2	126.233	1.270	N.S.
		Within	27	99.407		
Later	ANCOVA	Between	2	16.598	0.423	N.S.
		Within	26	30.197		

(F: 2, 27 = 3.35; 2, 26 = 3.37; P $<$ .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	51.5	55.043
Experimental Y	58.6	56.217
Control C	54.8	53.64

Growth on the Group Analysis Scale in Trial IV

Growth on the four scales of the Group Analysis Scale is illustrated (Figure 4) for Group X of Trial IV. Ratings are shown for the group after three weeks, at the end of treatment, and four weeks following the termination of treatment. The curves give a clear visual indication of progressive development. Growth is also illustrated for Group Y (Figure 5) of Trial IV. The curves of ratings over the three periods of time show clearly the positive effect of treatment over time.

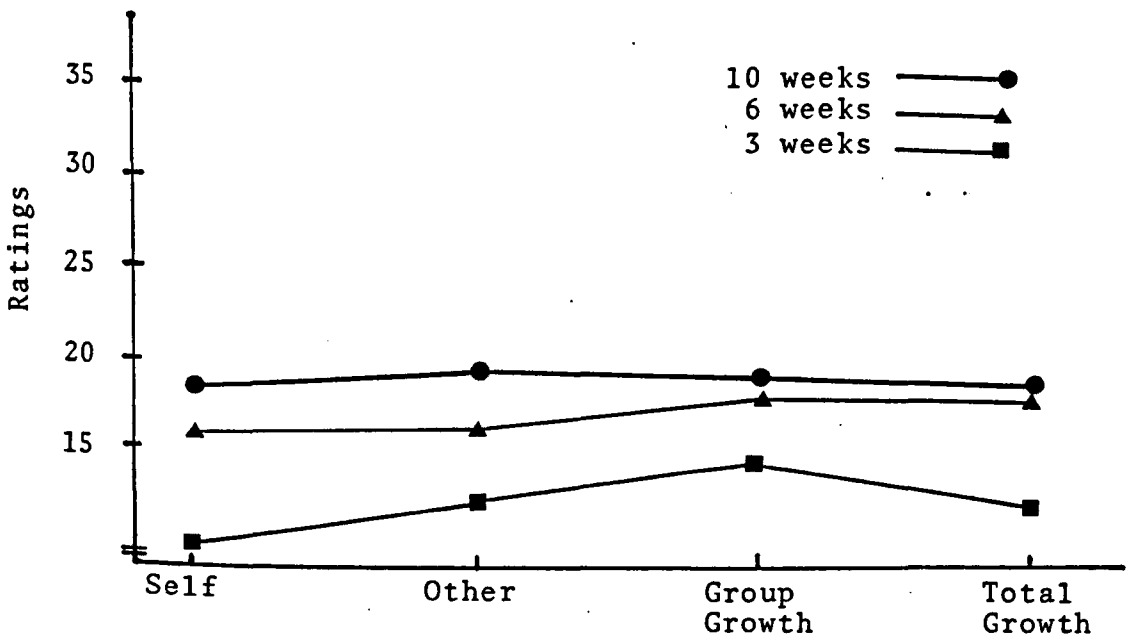

Figure 4

Graph Illustrating the Changes In Scores of the Group Analysis Scale At the end of 3 Weeks, 6 Weeks, and 4 Weeks Following Treatment for Group X (Modelling) Trial IV

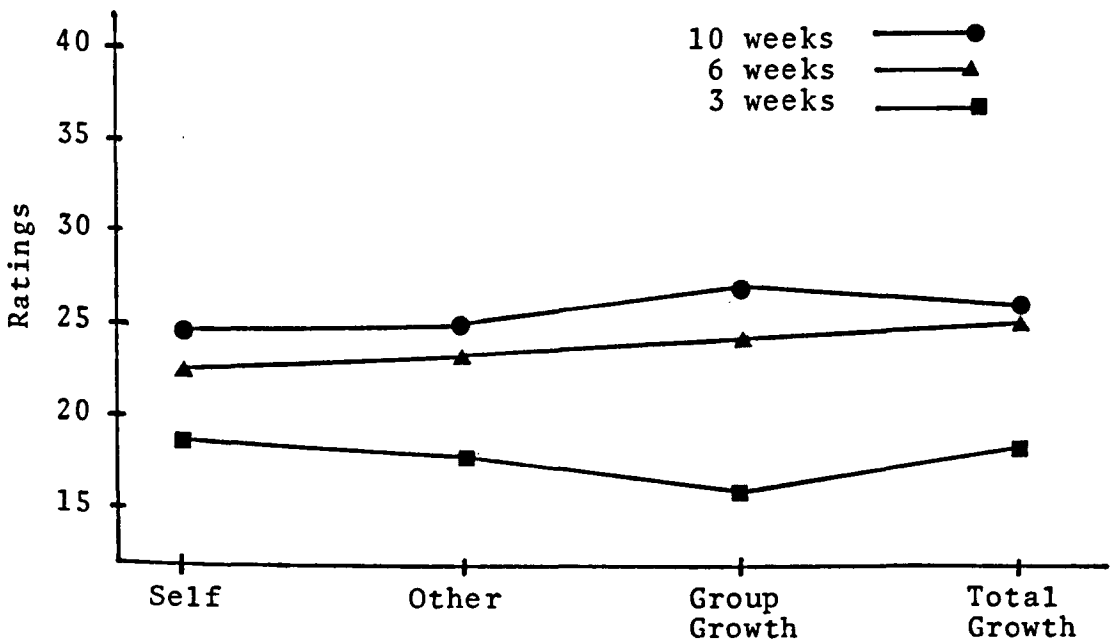

Figure 5

Graph Illustrating the Changes in Scores of the Group Analysis Scale at the end of 3 Weeks, 6 Weeks, and 4 Weeks Following Treatment for Group Y (Social Reinforcement) of Trial IV

The Group Analysis Scale, Post-Test and "Later" Scores

It was hypothesised that the treatment will have no effect on criterion scores gained from Method X and those gained from Method Y. While it was demonstrated from the previous section that both methods revealed positive growth, the aim was to ascertain if one method had greater effectiveness than the other method, and whether or not this effectiveness was maintained in the four weeks following the termination of treatment. Analyses of the post test scores and the adjusted means as well as of the "later" scores and the adjusted means are presented in evidence.

Group Analysis Scale (Self)

The analysis of covariance of post-test scores revealed no significant differences between X and Y (Table 119), thus supporting the null hypothesis. However, in terms of the adjusted means we see that experimental Y was slightly better than experimental X.

Table 119

Analysis of Post-Test Scores on G.A.S. (Self) for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	1	101.25	2.33	N.S.
		Within	18	43.40		
Post	ANOVA	Between	1	120.05	2.87	N.S.
		Within	18	41.80		
Post	ANCOVA	Between	1	6.32	0.48	N.S.
		Within	17	13.12		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	22.2	24.05
Experimental Y	27.1	25.25

In terms of the "later" scores on the self dimension there was no significant difference between the two experimental conditions (Table 120). In this case the adjusted means favoured the experimental condition X by a slight degree over the experimental condition Y.

Table 120

Analysis of "Later" Scores on
G.A.S. (Self) for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Post	ANOVA	Between	1	101.25	2.33	N.S.
		Within	18	43.40		
Later	ANOVA	Between	1	5.	0.19	N.S.
		Within	18	26.01		
Later	ANCOVA	Between	1	10.06	0.64	N.S.
		Within	17	15.77		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	24.3	25.56
Experimental Y	25.3	24.04

Group Analysis Scale (Other)

The analysis of post test scores on the "other" dimension showed no significant difference between the two experimental conditions (Table 121). Both of the adjusted means were very close, with experimental Y gaining a fraction higher than experimental X. On the whole the null hypothesis on this dimension must be accepted.

Table 121

Analysis of Post Test Scores on G.A.S. (Other) For Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	1	7.2	0.23	N.S.
		Within	18	31.32		
Post	ANOVA	Between	1	9.8	0.28	N.S.
		Within	18	34.5		
Post	ANCOVA	Between	1	0.99	0.06	N.S.
		Within	17	15.64		

(F: 1, 18 = 4.41; 1, 17 = 4.45; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	25.8	26.28
Experimental Y	27.2	26.72

In terms of "later" scores on this dimension there was no significant difference between the two conditions (Table 122). The F ratio, however, was fairly substantial and this indicated that there may be slight differences. In terms of the adjusted means it was seen that Experimental Y was better than Experimental X. Therefore, the research hypothesis in favour of modelling cannot be substantiated.

Table 122

Analysis of "Later" Scores on
G.A.S. (Other) for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Post	ANOVA	Between	1	7.2	0.23	N.S.
		Within	18	31.32		
Later	ANOVA	Between	1	80.	2.93	N.S.
		Within	18	27.32		
Later	ANCOVA	Between	1	52.19	2.80	N.S.
		Within	17	18.62		

(F: 1, 18 = 4.41; 1, 17 = 4.45; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	22.9	23.27
Experimental Y	26.9	26.53

Group Analysis Scale (Group Growth)

On the scale of group growth a definitely high degree of significant difference was obtained between the two experimental conditions (Table 123). The adjusted means showed that Experimental Y was much higher than Experimental X. We must reject the null hypothesis in this case, and we cannot accept the research hypothesis as it stands.

Table 123

Analysis of Post Test Scores on
G.A.S. (Group Growth) for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	1	125.	5.23	P < .05
		Within	18	23.89		
Post	ANOVA	Between	1	361.25	13.47	P < .05
		Within	18	26.81		
Post	ANCOVA	Between	1	357.36	13.16	P < .05
		Within	17	27.15		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	18	18.55
Experimental Y	26.5	25.95

In terms of the "later" scores on group growth, significant differences were obtained between the two experimental conditions (Table 124). As in the case with the post test scores above, the condition Y was definitely better than the condition X.

Table 124

Analysis of "Later" Scores on
G.A.S. (Group Growth) for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Post	ANOVA	Between	1	125.	5.23	P < .05
		Within	18	23.89		
Later	ANOVA	Between	1	64.8	9.69	P < .05
		Within	18	6.69		
Later	ANCOVA	Between	1	32.49	4.60	P < .05
		Within	17	7.06		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	25.4	25.51
Experimental Y	29.	28.88

Group Analysis Scale (Total)

The analysis of covariance of the total scores on the G.A.S. revealed no significant differences in support of the null hypothesis (Table 125). However, the adjusted scores showed that the Experimental Y condition made a higher score than the Experimental X condition.

Table 125

Analysis of Post Test Scores on G.A.S. (Total) for Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	1	92.45	0.42	N.S.
		Within	18	218.56		
Post	ANOVA	Between	1	296.45	1.28	N.S.
		Within	18	231.23		
Post	ANCOVA	Between	1	82.99	0.98	N.S.
		Within	17	84.56		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	73.	74.79
Experimental Y	80.7	78.91

The "later" scores on the total scale revealed the same finding as the post test scores (Table 126). Experimental group Y did better in the maintenance of treatment effects four weeks following the termination of the sessions.

Table 126

Analysis of "Later" Scores on
G.A.S. (Total) For Trial IV

Test	Analysis	Source of Variation	DF	M.S.	F	P
Post	ANOVA	Between	1	92.45	0.42	N.S.
		Within	18	218.56		
Later	ANOVA	Between	1	460.8	4.44	$P < .05$
		Within	18	103.78		
Later	ANCOVA	Between	1	196.65	2.81	N.S.
		Within	17	69.96		

(F: 1, 18 = 4.41; 1, 17 = 4.45; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	72.6	74.15
Experimental Y	82.2	80.64

Ratings of External Observers on Trial IV

Ratings on the observed behaviour of group members were given by three senior staff members independently. A composite rating was gained on each client immediately following treatment and one month following the termination of treatment (Tables 127, 128).

The sign test on the ratings following treatment revealed that both of the experimental groups (X, Y) did better than the control group (C). It was noted that neither one of the experimental groups was better than the other.

The sign test on ratings one month following treatment showed that the same results had been maintained. This supported the prediction of gains by the experimental groups over the control group as well as that of the maintenance of treatment effects.

Table 127

Sign Tests on Ratings of Observed Behaviour Towards Self and Others Among the Experimental Groups X, Y and the Control C, Immediately Following the Termination of Treatment

Group X Ss	Post Obs.	Group Y Ss	Post Obs.	Group C Ss	Post Obs.
1	+	1	+	1	-
2	+	2	+	2	+
3	+	3	+	3	+
4	-	4	+	4	-
5	+	5	-	5	-
6	+	6	+	6	+
7	+	7	+	7	+
8	+	8	+	8	+
9	+	9	+	9	-
10	+	10	+	10	+
X = 1		X = 1		X = 4	
N = 10		N = 10		N = 10	
P = .011		P = .011		P = .377	
P < .02		P < .02		P > .10	
Significant		Significant		N. S.	

Trial IV - N.B. Youth Training Centre (1976).

Table 128

Sign Tests on Ratings of Observed Behaviour Towards Self and Others Among the Experimental Groups X, Y and the Control C, one month Following the Termination of Treatment

Group X Ss	Obs. Later	Group Y Ss	Obs. Later	Group C Ss	Obs. Later
1	+	1	+	1	-
2	+	2	+	2	+
3	+	3	+	3	+
4	-	4	-	4	-
5	+	5	+	5	-
6	+	6	+	6	+
7	+	7	+	7	+
8	+	8	+	8	+
9	+	9	+	9	-
10	+	10	+	10	+
X = 1		X = 1		X = 4	
N = 10		N = 10		N = 10	
P = .011		P = .011		P = .377	
P < .02		P < .02		P > .10	
Significant		Significant		N.S.	

Trial IV - N.B. Youth Training Centre (1976).

Summary of Results on Trial IV

Major findings on Trial IV revealed that five of the six variables used yielded outright significant differences among the three groups in the study. The variable that yielded no significance among groups was the semantic differential. The other variables which yielded significant differences in favor of the experimental groups were self-acceptance, acceptance of others, self-concept scale total, group analysis scale and external ratings on observed behaviour. Finer analysis showed that in two situations the modelling and social reinforcement conditions were equal in effect, in two situations the modelling condition was better than the social reinforcement condition, but in four situations the social reinforcement condition was better than modelling. Therefore, social reinforcement counselling was better on the whole than modelling reinforcement counselling in this trial.

The findings are as follows:

(a) In terms of the semantic differential, there were no significant differences among the groups on the covariance analysis. The adjusted means, however, revealed that both of the experimental groups were higher than the control group and that the modelling group was no different from the social reinforcement group.

(b) Significant differences were observed among groups on self-acceptance. Both of the experimental groups were better than the control group, and social reinforcement was higher than modelling.

(c) Significant differences were gained among groups

on acceptance of others. The two experimental groups were better than the control group, and social reinforcement was ahead of modelling.

(d) Two of the sub-scales on the PSCS were significant at the .05 and .1 levels, namely, Intellectual and Social Status as well as the total scale. However, the adjusted means showed that in all four sub-scales the experimental groups were higher than the control group. Two of the sub-scales showed modelling better than social reinforcement, while the other two scales revealed the converse.

(e) In terms of post and later scores, the matched groups t test showed that the majority of scales in the experimental groups had no significant differences and those in the control group were static. This lent support for the maintenance of treatment effects.

(f) In terms of the maintenance of treatment effects in the short run, the adjusted means for all variables (S-D, S/A, A/O and PSCS) showed that both of the experimental groups were better than the control group, and that the social reinforcement condition was better than the modelling condition in three of the four cases.

(g) Findings on all scales of the Group Analysis Scale using the ANCOVA revealed no significant differences between Experimental X and Experimental Y. On the basis of the post test adjusted scores social reinforcement was ahead of modelling. In terms of the maintenance of treatment effects, social reinforcement gained a very slight margin over modelling.

(h) As a result of external ratings of observed behaviour immediately following treatment, the two experimental groups scored significantly better than the control group. Ratings one month later supported this finding likewise. This supported the effectiveness of treatment in the short run. Neither of the experimental groups was better than the other.

CHAPTER 16

ANALYSIS OF RESULTS FOR TRIAL V

The results of the fifth trial are presented in the same manner as those of the previous trial. The first analysis presented is the ANOVA of the personality variable. The next is the ANOVA and ANCOVA of all the variables. Then follows the t test of differences between the post and later scores. The analysis of variance of the pre, post and later scores with the use of multiple comparisons is then made. Following is the ANOVA of the Group Analysis Scale with the use of multiple comparisons. The final analysis is the sign test for directional advantage of the experimental groups over the control group on the effectiveness of treatment.

In addition to the measures of self and others, the group analysis scale and the rating scale of observable behaviour have proven to be effective tools. The Piers-Harris Self-Concept Scale, which was used as a replacement for the Tennessee self-concept scale in earlier chapters, was applied as well in this trial.

The Personality Inventory

Table 129

ANOVA of EPI Sub-Tests for Trial V

Variable	Groups	DF	F Ratio	P<.05	Significance
Extraversion	X, Y, C	2, 27	0.947	3.35	N.S.
Neuroticism	X, Y, C	2, 27	1.686		N.S.
Lie Scale	X, Y, C,	2, 27	0.508		N.S.

The analysis of variance of the sub-tests of the Junior Eysenck Personality Inventory (Table 129) revealed no significant differences among the three groups (X, Y and C). Therefore, on the basis of personality characteristics, the groups were similar. Initial advantages on this dimension, if any, were reduced to a minimum.

The Semantic Differential

An analysis of the pre test scores on S-D (Table 130) revealed no significant differences among the three groups. The post test scores showed no significant differences at the 5% level.

Table 130

Analyses of Pre and Post Test Scores on the S-D for Trial V

Test	Analysis	Source of Variance	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	149.233	0.683	N.S.
		Within	27	218.3		
Post Test	ANOVA	Between	2	53.733	0.258	N.S.
		Within	27	207.77		
Post Test	ANCOVA	Between	2	153.685	0.910	N.S.
		Within	26	168.787		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

Using the analysis of covariance on the post test scores (Table 130), no significant differences emerged among the three groups. When the adjusted means were considered (Table 131) it was found that each of the experimental groups

was higher than the control group. It was also found that the social reinforcement group was higher than the modelling group.

Table 131

Adjusted Means of Groups on S-D

Groups	Unadjusted Means	Adjusted Means
Experimental X	112.4	112.566
Experimental Y	112.8	114.469
Control C	108.6	106.763

Self-Acceptance

The analysis of the pre test scores on S/A (Table 132) yielded no significant differences among the three conditions. The F value for post test scores was not significant as well.

Table 132

Analyses of Pre and Post Test Scores on Self Acceptance for Trial V

Test	Analysis	Source of Variance	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	97.281	1.795	N.S.
		Within	27	54.201		
Post Test	ANOVA	Between	2	30.625	0.424	N.S.
		Within	27	72.305		
Post Test	ANCOVA	Between	2	121.233	2.439	$P < .10$
		Within	26	49.701		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

The analysis of covariance of the post test scores indicated a significant difference among groups approaching a .10 level (Table 132). The table of adjusted means (Table 133) showed that each of the experimental groups was greater than the control group, and the social reinforcement group was higher than the modelling group.

Table 133

Adjusted Means of Groups on S/A For Trial V

Groups	Unadjusted Means	Adjusted Means
Experimental X	53.099	54.376
Experimental Y	54.899	56.042
Control C	51.399	48.982

Acceptance of Others

The pre test scores on A/O yielded a low F ratio and therefore no significant difference among groups (Table 134). The F value for the post test scores was much higher and it did attain a significance level of 0.1, expressing differences among groups after treatment.

Table 134

Analyses of Pre and Post Test Scores on Acceptance of Others for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	38.094	0.107	N.S.
		Within	27	35.725		
Post Test	ANOVA	Between	2	144.438	2.653	$P < .10$
		Within	27	54.449		
Post Test	ANCOVA	Between	2	210.51	4.794	$P < .05$
		Within	26	43.913		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

When the post test scores were subjected to an ANCOVA (Table 134), a significant difference among groups evolved at the 5% level. Therefore, the experimental groups were better than the control group.

Table 135

Adjusted Means of Groups on A/O

Groups	Unadjusted Means	Adjusted Means
Experimental X	53.599	54.767
Experimental Y	54.799	54.742
Control C	47.699	46.591

In this case of the adjusted means (Table 135) the modelling condition was slightly higher than the social reinforcement

condition, and each of the experimental groups was better than the control group.

The Piers-Harris Self-Concept Scale

Results for three sub-scales and the total test of the PSCS are reported. Data will be presented for sub-scales 1, 2, and 3 and then for the total scale.

Sub-Scale 1: Behaviour plus Anxiety (Factors I and IV)

In the sub-scale dealing with behaviour plus anxiety, the ANOVA of pre test scores revealed no significant differences among groups (Table 136). The F value for post test scores was much higher than for pre test scores. This value was significant at the 0.1 level, thus illustrating significant differences among groups after treatment.

Table 136

Analyses of Pre and Post Test Scores on Sub-Scale I (Behaviour...) of the PSCS for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	37.199	1.126	N.S.
		Within	27	33.033		
Post Test	ANOVA	Between	2	53.432	2.761	$P < 0.1$
		Within	27	19.352		
Post Test	ANCOVA	Between	2	51.230	13.254	$P < .01$
		Within	26	3.865		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

The analysis of covariance revealed a highly significant difference among the three groups (Table 136). The adjusted means (Table 137) showed that each of the experimental groups was higher than the control group. In addition, the social reinforcement group was higher than the modelling group.

Table 137

Adjusted Means of Groups on Sub-Scale I

Groups	Unadjusted Means	Adjusted Means
Experimental X	20.	21.513
Experimental Y	23.899	23.350
Control C	19.799	18.837

Sub-Scale 2: Intellectual and Social Status Plus Popularity (Factors II and V)

On the scale dealing with Intellectual and Social Status the pre test scores (Table 138) showed no significant difference among the groups. Even the post test analysis showed that the groups were not significant, although the F ratio was quite high.

Table 138

Analyses of Pre and Post Test Scores on Sub-Scale 2 (Intellectual...) of the PSCS for Trial V

Test	Analysis	Source of Variance	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	1.732	0.0699	N.S.
		Within	27	24.756		
Post Test	ANOVA	Between	2	49.432	2.237	N.S.
		Within	27	22.093		
Post Test	ANCOVA	Between	2	45.964	10.924	$P < .01$
		Within	26	4.207		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

With the analysis of covariance of the post test scores (Table 138) a very high F value was obtained. This showed that differences among groups were highly significant at the .01 level.

Table 139

Adjusted Means of Groups on Sub-Scale 2

Groups	Unadjusted Means	Adjusted Means
Experimental X	18.	18.285
Experimental Y	18.099	17.702
Control C	14.2	14.314

The adjusted means (Table 139) supported the prediction showing that the experimental groups were higher than the control group. The score on the modelling condition was

greater than that on the social reinforcement condition.

Sub-Scale 3: Physical Appearance and Attributes Plus Happiness and Satisfaction (Factors III and VI)

The analysis on "Physical Appearance..." revealed no significant differences among pre test scores (Table 140). The analysis of post test scores also revealed no significant difference among the groups.

Table 140

Analyses of Pre and Post Test Scores on the Sub-Scale 3 (Physical Appearance...) of the PSCS for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	3.232	0.122	N.S.
		Within	27	26.556		
Post Test	ANOVA	Between	2	31.232	1.081	N.S.
		Within	27	28.896		
Post Test	ANCOVA	Between	2	51.091	8.147	$P<.01$
		Within	26	6.271		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

However, the analysis of covariance of post test scores (Table 140) indicated a significant difference among groups much better than the .01 level. This finding was supported by the adjusted means (Table 141) which showed that the experimental groups were each higher than the control group. Social reinforcement emerged slightly higher than modelling.

Table 141

Adjusted Means of Groups on Sub-Scale 3

Groups	Unadjusted Means	Adjusted Means
Experimental X	17.199	17.632
Experimental Y	17.5	17.655
Control C	14.299	13.712

Total Self-Concept Scale: PSCS (Factors I to VI)

On the total scale of the PSCS the pre test scores (Table 142) showed no significant differences. Likewise, the analysis of post test scores revealed no significant differences among the three groups.

Table 142

Analyses of Pre and Post Test Scores on the Total Scale of the PSCS For Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre Test	ANOVA	Between	2	81.632	0.402	N.S.
		Within	27	203.026		
Post Test	ANOVA	Between	2	319.219	1.791	N.S.
		Within	27	178.231		
Post Test	ANCOVA	Between	2	456.694	25.149	$P < .01$
		Within	26	18.159		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$

An examination of the post test scores by the analysis of covariance (Table 142) indicated a very high adjusted F value significant at far better than the .01 level. The three groups, therefore, show significant differences. Each of the experimental groups was higher than the control group, and the social reinforcement group was greater than the modelling reinforcement group (Table 143).

Table 143

Adjusted Means of Groups on the Total Scale

Groups	Unadjusted Means	Adjusted Means
Experimental X	55.199	58.107
Experimental Y	59.5	58.403
Control C	48.299	46.491

Comparison of Post and "Later" Scores in Trial V

The purpose of a comparison of post and later scores on all variables was to obtain no difference between the values. This would serve to show that treatment effects had been maintained.

The matched groups t test was employed with all variables for Experimental X (Table 144), for Experimental Y (Table 145) and for Control C (Table 146). In each of the experimental groups most variables (five of seven; six of seven) revealed no significant differences between post and later testing, but evidence of change in values was present. In the control group, on the other hand, while there were no significant differences on all variables there was evidence that the

Table 144

The t Tests for Post and Later Scores
For all Variables for Experimental X

Instruments	N	Mean Post	Mean Later	t	P
S-D	10	112.4	114.7	1.451	N.S.
Berger S/A	10	53.1	50.9	1.222	N.S.
Berger A/O	10	53.6	53.8	0.771	N.S.
PSCS I	10	20.0	16.1	2.861	Significant
PSCS II	10	18.0	16.7	2.247	N.S.
PSCS III	10	17.2	14.3	2.057	N.S.
PSCS Total	10	49.1	51.3	3.578	Significant

(t: 9 = 2.262, P < .05)

George St. Junior High School, 1976

means of post and "later" tests remained static.

Another analysis of "later" scores consistent with previous analyses of post test scores will be performed in order to determine the degree of maintenance of treatment effects among the three conditions. The analysis of covariance of "later" scores using pre test scores as covariates was applied to the four variables, namely, S-D, S/A, A/O, and PSCS.

Table 145

The t Test for Post and Later Scores
For all Variables for Experimental Y

Instruments	N	Mean Post	Mean Later	t	P
S-D	10	112.8	112.5	0.434	N.S.
Berger S/A	10	54.9	51.9	2.032	N.S.
Berger A/O	10	54.8	55.1	0.135	N.S.
PSCS I	10	23.9	23.1	1.174	N.S.
PSCS II	10	18.1	17.3	1.444	N.S.
PSCS III	10	17.5	17.3	0.801	N.S.
PSCS Total	10	59.5	57.7	3.037	Significant

(t: 9 = 2.262, P < .05)

George St. Junior High School, 1976

Table 146

The t Test for Post and Later Scores
For all Variables for Control C

Instruments	N	Mean Post	Mean Later	t	P
S-D	10	108.6	107.3	1.154	N.S.
Berger S/A	10	51.4	51.4	.000	N.S.
Berger A/O	10	47.7	48.8	0.715	N.S.
PSCS I	10	19.8	20.9	1.038	N.S.
PSCS II	10	14.1	14.8	0.595	N.S.
PSCS III	10	14.3	16.0	1.509	N.S.
PSCS Total	10	48.3	51.9	1.685	N.S.

(t: 9 = 2.262, P< .05)

George St. Junior High School, 1976

S-D Scores, One Month Later

An analysis of covariance of the "later" scores revealed no significant differences among the three conditions on the S-D (Table 147). The adjusted means for the scores on this variable showed that each of the experimental conditions was better than the control condition and that the modelling group was slightly better than the social reinforcement group. This illustrates that treatment effects were maintained after the conclusion of the sessions much more effectively by the experimental groups than by the control group.

Table 147

Analysis of "Later" Scores on S-D
For Trial V

Test	Analysis	Source of Variance	DF	M.S.	F	P
Pre	ANOVA	Between	2	148.633	0.689	N.S.
		Within	27	215.485		
Later	ANOVA	Between	2	144.4	0.537	N.S.
		Within	27	268.98		
Later	ANCOVA	Between	2	264.93	1.147	N.S.
		Within	26	230.896		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	114.7	114.808
Experimental Y	112.5	114.237
Control C	107.3	105.454

Self-Acceptance, One Month Later

The analysis of later scores showed no significant differences among groups on S/A (Table 148). However, in terms of the adjusted means it was revealed that the experimental groups were better than the control group, and that modelling was fractionally better than social reinforcement.

Table 148

Analysis of "Later" Scores on S/A
For Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	2	97.3	1.795	N.S.
		Within	27	54.2		
Later	ANOVA	Between	2	2.5	0.044	N.S.
		Within	27	56.304		
Later	ANCOVA	Between	2	26.613	0.628	N.S.
		Within	26	42.356		

(F: 2, 27 = 3.35; 2, 26 = 3.37; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	50.9	51.917
Experimental Y	51.9	52.809
Control C	51.4	49.474

Acceptance of Others, One Month Later

The analysis of A/O scores (Table 149) did not show significance at the .05 level. Since the F value was very substantial it must be considered as strongly in favour of small differences. In fact, significance could be noted at the 0.1 level. The adjusted means showed that each of the experimental conditions was better than the control, and Experimental Y was slightly ahead of Experimental X.

Table 149

Analysis of "Later" Scores on A/O
For Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	2	64.133	1.578	N.S.
		Within	27	40.652		
Later	ANOVA	Between	2	102.9	1.806	N.S.
		Within	27	56.981		
Later	ANCOVA	Between	2	151.298	3.088	N.S.
		Within	26	49.		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	53.	54.342
Experimental Y	55.1	54.871
Control C	48.8	47.687

The Piers-Harris Self-Concept Scale, One Month Later

A significant difference was observed among the three conditions on this variable (Table 150). While the adjusted means revealed that the experimental groups were higher than the control group, it showed that the social reinforcement group was better than the modelling group in the maintenance of treatment effects.

Table 150

Analysis of "Later" Scores on PSCS
For Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	2	81.633	0.402	N.S.
		Within	27	203.026		
Later	ANOVA	Between	2	122.633	0.638	N.S.
		Within	27	192.067		
Later	ANCOVA	Between	2	111.022	6.182	$P < .05$
		Within	26	17.958		

(F: 2, 27 = 3.35; 2, 26 = 3.37; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	51.4	54.431
Experimental Y	57.7	56.556
Control C	51.9	50.013

Growth on the Group Analysis Scale in Trial V

Growth on the four scales of the Group Analysis Scale is shown for Experimental X of Trial V (Figure 6). This is also seen as well for group Y of Trial V. (Figure 7). The curves of the ratings show clearly that the groups gained substantially from their ratings at three weeks to their ratings at six weeks. The increase four weeks later was smaller in both cases; nevertheless, it established the finding of the maintenance of treatment effects in the short run.

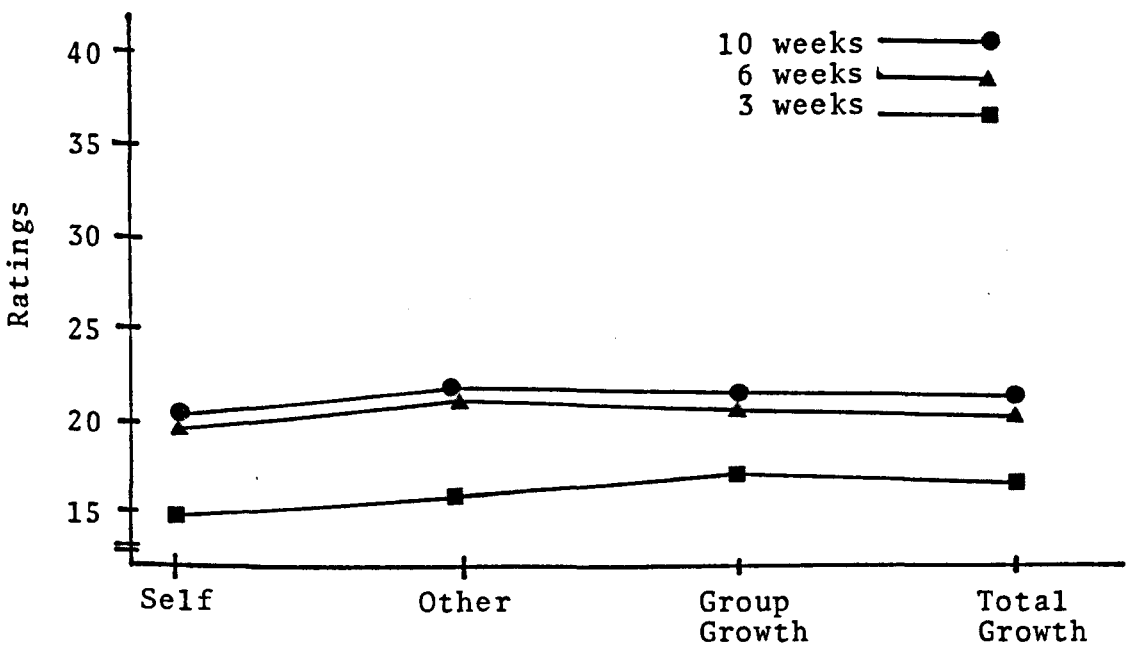

Figure 6

Graph Illustrating the Changes in Scores of the Group Analysis Scale at the end of 3 Weeks, 6 Weeks, and 4 Weeks Following Treatment for Group X (Modelling) Trial V

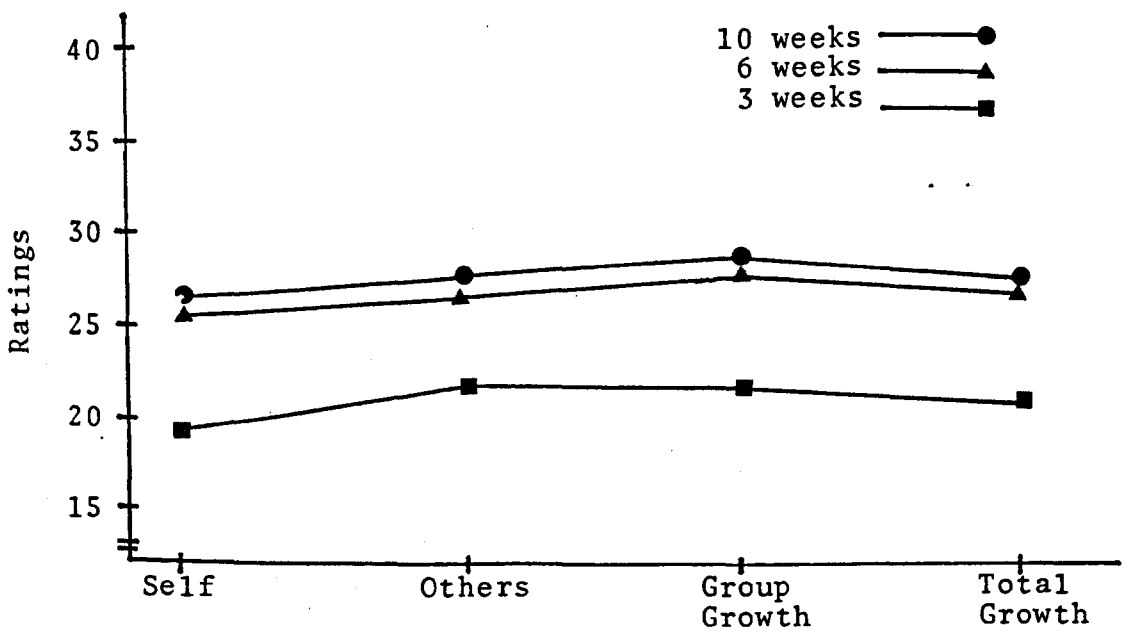

Figure 7

Graph Illustrating the Changes in Scores of the Group Analysis Scale at the end of 3 Weeks, 6 Weeks, and 4 Weeks Following Treatment for Group Y (Social Reinforcement) Trial V

The Group Analysis Scale, Post-Test and "Later" Scores

From the previous section it was shown that the experimental conditions were responsible for positive growth in all scales of the G.A.S. An attempt will be made to see whether or not there are differences between the two experimental conditions just after treatment and to note if such a situation is maintained four weeks after treatment. The analysis of covariance and adjusted means will be presented for post-test scores as well as for "later" scores for all scales of the instrument.

Group Analysis Scale (Self)

The covariance two group analysis on post test scores showed that there was no significant difference between condition X and condition Y (Table 151) in support of the null hypothesis. In terms of adjusted means, Experimental Y gained a higher score than Experimental X.

Table 151

Analysis of Post-Test Scores on G.A.S. (Self) for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	1	0.2	0.007	N.S.
		Within	18	28.21		
Post	ANOVA	Between	1	33.8	2.07	N.S.
		Within	18	16.34		
Post	ANCOVA	Between	1	31.52	2.76	N.S.
		Within	17	11.42		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	22.7	22.74
Experimental Y	25.3	25.25

In terms of the "later" scores on the self dimension there was no significant difference between condition X and condition Y (Table 152). The adjusted means favoured Experimental X by a very slight margin. On the whole, the null hypothesis must be accepted.

Table 152

Analysis of "Later" Scores on G.A.S. (Self) for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Post	ANOVA	Between	1	0.2	0.007	N.S.
		Within	18	28.21		
Later	ANOVA	Between	1	2.45	0.09	N.S.
		Within	18	25.45		
Later	ANCOVA	Between	1	4.85	0.25	N.S.
		Within	17	19.19		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	23.8	24.67
Experimental Y	24.5	23.63

Group Analysis Scale (Other)

There was no significant difference between the experimental groups on the post test for the "other" dimension (Table 153). The adjusted means showed that Experimental Y gained a higher score than Experimental X, contrary to the research hypothesis.

Table 153

Analysis of Post Test Scores on G.A.S. (Other) for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	1	7.2	0.19	N.S.
		Within	18	36.43		
Post	ANOVA	Between	1	31.25	0.77	N.S.
		Within	18	40.32		
Post	ANCOVA	Between	1	12.24	0.62	N.S.
		Within	17	19.67		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	24.2	24.66
Experimental Y	26.7	26.24

In terms of "later" scores, there was no significant difference between the experimental conditions (Table 154). Both groups did equally well in maintaining treatment effects. However, an examination of the adjusted means showed that the condition X was slightly higher than the condition Y.

Table 154

Analysis of "Later" Scores on
G.A.S. (Other) for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Post	ANOVA	Between	1	7.2	0.19	N.S.
		Within	18	36.45		
Later	ANOVA	Between	1	2 45	0.06	N.S.
		Within	18	39.67		
Later	ANCOVA	Between	1	4.14	0.17	N.S.
		Within	17	23.88		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	24.8	25.61
Experimental Y	25.5	24.68

Group Analysis Scale (Group Growth)

On the basis of the ANCOVA the post test scores on group growth are close to a significant difference between the experimental conditions (Table 155). The null hypothesis in this case may be rejected at the 0.1 level. Social Reinforcement was better than modelling in terms of the adjusted scores.

Table 155

Analysis of Post Test Scores on
G.A.S. (Group Growth) for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	1	0.45	0.02	N.S.
		Within	18	18.92		
Post	ANOVA	Between	1	72.2	2.98	N.S.
		Within	18	24.2		
Post	ANCOVA	Between	1	64.32	4.09	N.S.
		Within	17	15.72		

(F: 1, 18 = 4.41; 1, 17 = 4.45; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	24.	24.1
Experimental Y	27.8	27.69

No significant difference was seen in "later" scores between the experimental groups on group growth (Table 156). On the basis of adjusted scores, the Experimental Y was ahead of Experimental X, this is contrary to the research hypothesis.

Table 156

Analysis of "Later" Scores on
G.A.S. (Group Growth) for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Post	ANOVA	Between	1	0.45	0.02	N.S.
		Within	18	18.92		
Later	ANOVA	Between	1	54.45	3.37	N.S.
		Within	18	16.14		
Later	ANCOVA	Between	1	17.09	1.21	N.S.
		Within	17	14.07		

(F: 1, 18 = 4.41; 1, 17 = 4.45; P < .05)

Groups	Unadjusted Means	Adjusted Means
Experimental X	23.4	24.05
Experimental Y	26.7	26.05

Group Analysis Scale (Total)

The analysis of post-test scores revealed no significant difference between the experimental groups at the .05 level (Table 157). The F value, however, is substantial. The adjusted means showed that the Experimental Y is clearly higher than Experimental X, again contrary to the research hypothesis.

Table 157

Analysis of Post Test Scores on G.A.S. (Total) for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Pre	ANOVA	Between	1	14.45	0.09	N.S.
		Within	18	150.14		
Post	ANOVA	Between	1	490.05	3.30	N.S.
		Within	18	148.58		
Post	ANCOVA	Between	1	394.26	3.84	N.S.
		Within	17	102.71		

(F: 1, 18 = 4.41; 1, 17 = 4.45; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	69.9	70.40
Experimental Y	79.8	79.30

In terms of "later" scores on the total scale, there was no significant difference between the two experimental conditions (Table 158). On the basis of adjusted scores the Experimental X scored higher than the Experimental Y, a factor in support of the research hypothesis.

Table 158

Analysis of "Later" Scores on
G.A.S. (Total) for Trial V

Test	Analysis	Source of Variation	DF	M.S.	F	P
Post	ANOVA	Between	1	14.45	0.09	N.S.
		Within	18	150.14		
Later	ANOVA	Between	1	84.05	0.41	N.S.
		Within	18	202.47		
Later	ANCOVA	Between	1	48.20	0.39	N.S.
		Within	17	124.64		

(F: 1, 18 = 4.41; 1, 17 = 4.45; $P < .05$)

Groups	Unadjusted Means	Adjusted Means
Experimental X	71.6	75.34
Experimental Y	75.7	71.96

Ratings of External Observers on Trial V

As in the previous trials, ratings on observed behaviour of group members were given by three senior staff members. These staff members or teachers were involved with the students in school and, therefore, had the opportunity to observe them in normal interaction situations. Ratings were made immediately following treatment and one month after the termination of treatment (Tables 159, 160).

Analysis of the composite ratings by means of the sign test revealed that each of the experimental groups (X, Y) had a significant rating in favour of positive action, while the control group (C) received no significance showing that more members of that group had expressed negative behaviours. The same results persisted one month following the termination of treatment, attesting to the fact that treatment effects had been maintained.

Table 159

Sign Tests on Ratings of Observed Behaviour Towards Self And Others Among the Experimental Groups X, Y and the Control C, Immediately Following the Termination of Treatment

Group X Ss	Post Obs.	Group Y Ss	Post Obs.	Group C Ss	Post Obs.
1	+	1	+	1	-
2	+	2	+	2	+
3	-	3	+	3	+
4	+	4	+	4	+
5	+	5	+	5	+
6	+	6	+	6	-
7	+	7	-	7	+
8	+	8	+	8	+
9	+	9	+	9	+
10	+	10	+	10	-
X = 1		X = 1		X = 3	
N = 10		N = 10		N = 10	
P = .011		P = .01		P = .172	
P < .02		P < .02		P > .10	
Significant		Significant		N.S.	

Trial V - George St. J.H.S. (1976)

Table 160

Sign Tests on Ratings of Observed Behaviour Towards Self and Others Among the Experimental Groups X, Y and the Control C, One Month Following the Termination of Treatment

Group X Ss	Obs. Later	Group Y Ss	Obs. Later	Group C Ss	Obs. Later
1	+	1	+	1	-
2	+	2	+	2	+
3	-	3	+	3	+
4	+	4	+	4	+
5	+	5	+	5	+
6	+	6	+	6	-
7	+	7	-	7	+
8	+	8	+	8	+
9	+	9	+	9	+
10	+	10	+	10	-
X = 1		X = 1		X = 3	
N = 10		N = 10		N = 10	
P = .011		P = .011		P = .172	
P < .02		P < .02		P > .10	
Significant		Significant		N.S.	

Trial V - George Street Junior High School (1976)

Summary of Results on Trial V

The findings of Trial V seem to be in accord with the results gained in the previous chapter. Five of the six variables utilised in the experiment yielded significant differences among the three groups (X, Y and C). As in the previous trial the same variable (S-D) yielded no significant differences among groups. No explanation can be given for this finding except that this seems to be a chance occurrence at this time and that the semantic differential is too broad to differentiate finely the kinds of gain a study of this nature must attempt to isolate. Further work on this variable is necessary.

Finer analysis looking at the condition that worked better of the two applied in this study revealed that in five of seven cases social reinforcement gained a greater mean score than modelling reinforcement.

The major results are as follows:

(a) In terms of the semantic differential, no significant differences were found among the groups. The adjusted means showed that each of the experimental groups was better than the control group, and social reinforcement was higher than modelling reinforcement.

(b) On self acceptance, significant differences were observed among the three groups with each of the experimental groups higher than the control group. Social reinforcement was higher significantly than modelling.

(c) On acceptance of others, it was revealed that the experimental groups were significantly better than the control group. The modelling condition was significantly

higher than the social reinforcement condition.

(d) In all of the four sub-tests of the self-concept scale, the experimental groups prove significantly better than the control group. In three sub-tests, social reinfcrcement was significantly better than modelling, and in one the converse occurred.

(e) In terms of the post and later scores, the matched groups t test showed that five of seven scales were not significant for Group X, and six of seven scales were not significant for Group Y. This supported the principle of the maintenance of treatment effects. However, in the control group, all of the variables showed no significance which indicated on examination no change or a static situation.

(f) In terms of the maintenance of treatment effects, the adjusted means for all variables (S-D, S/A, A/O, PSCS) revealed that the experimental groups were better than the control group, and that social reinforcement was more effective than modelling in three of four cases.

(g) The scales of the Group Analysis Scale revealed no significant difference between condition X and Y on the post test scores. In terms of the maintenance of treatment effects there was no difference between condition X and condition Y. Both treatment groups were equally effective on this instrument.

(h) In terms of external ratings of observed behaviour immediately following treatment, it was found that the two experimental groups did significantly better than the control group. This finding was supported in the case of ratings taken one month following the conclusion of treatment, thus establishing the effects of treatment in the short term. Moreover, the two experimental conditions did equally well.

CHAPTER 17

ANALYSIS AND DISCUSSION OF RESULTS

The hypotheses postulated in Chapter 8 will be examined in the light of the evidence received from findings. These findings emerge from two pilot studies and five trials of the experiment. Each hypothesis will be summarised only in the null form. Data from all of the seven studies will be presented in tabular form and discussed. At the end of the results to all the hypotheses, a general discussion of the experiment in the light of the background of the study will be detailed.

The discussion will take into account the problems involved in studies of this nature. It will point out the techniques and original methods used. It will underscore matters such as the evaluation of outcome, the procedure used in treatment for purposes of replication and the use of models versus social reinforcement in group counselling.

Pre-Test Variables (Measured)

Apart from the initial measures of the variables ultimately to be used as criteria, the Junior Eysenck Personality Inventory was used in all seven trials to check the randomness of allocation to the three experimental groups on the three variables which are measured by this test, namely, Extraversion, Neuroticism, and the Lie Scale. Tables 161-163 summarise the results of the analysis of variance tests for the three groups in each of the seven trials, and it shows, as expected, no significant differences between the groups in any of the variables.

Table 161

F Values for Extraversion in All Trials

Trials	F	P	Significance
Pilot I	0.703	P > .05	N.S.
Pilot II	1.539	P > .05	N.S.
Trial I	0.861	P > .05	N.S.
Trial II	2.38	P > .05	N.S.
Trial III	0.831	P > .05	N.S.
Trial IV	0.889	P > .05	N.S.
Trial V	0.947	P > .05	N.S.

Table 162

F Values for Neuroticism in All Trials

Trials	F	P	Significance
Pilot I	0.042	P > .05	N.S.
Pilot II	1.087	P > .05	N.S.
Trial I	2.297	P > .05	N.S.
Trial II	0.722	P > .05	N.S.
Trial III	0.814	P > .05	N.S.
Trial IV	1.998	P > .05	N.S.
Trial V	1.686	P > .05	N.S.

Table 163

F Values for the Lie Scale in All Trials

Trials	F	P	Significance
Pilot I	0.135	P > .05	N.S.
Pilot II	0.069	P > .05	N.S.
Trial I	0.076	P > .05	N.S.
Trial II	1.464	P > .05	N.S.
Trial III	0.316	P > .05	N.S.
Trial IV	1.830	P > .05	N.S.
Trial V	0.508	P > .05	N.S.

Criterion Variable Analysis (Interval Scales)

A summary of the analysis of the criterion variables is given for each of the variables used for all trials in the study. Since the data for these variables are ordered in the form of interval scales, the null hypothesis A, which forms the main part of the investigation, will be the one under scrutiny.

Semantic Differential Scale

Null Hypothesis A: There are no significant differences among the two experimental and one control condition on post-test means on the Semantic Differential Scale (i.e., $U_X = U_Y = U_C$).

Throughout the statistical analysis the test of this hypothesis has been interpreted to imply that the means tested will be those adjusted for initial scores, and the method has been Analysis of Covariance. The F values for the one-

way Ancova are summarised in Table 164. This shows that two of the six trials were not significant, but the remaining four were significant. To reduce the evidence to a general interpretation of all the trials, we can consider an approximate test based on the principles of the sign test. With our accepted level of .05, we can count P less than .05 as a "success", P greater than .05 as a failure, and calculate the probability of four successes out of six trials by the usual Binomial procedure, assuming P = ½, i.e., success is just as likely as failure. The probability of four successes is, then, .344, which is not significant. However, there is every indication to believe that self-dimension showed gains in most trials, and that the instrument was not fully effective in the final trials for reasons best subsumed under the effect of chance. Moreover, the data on the adjusted means show significant differences in favor of the experimental groups (Tables 165, 166).

Trial 164

Sign Test of Adjusted F Values for All Trials on the Semantic Differential

Trials	Adjusted F	Significance	Sign
Pilot I			
Pilot II	4.779	$P < .05$	+
Trial I	5.043	$P < .05$	+
Trial II	11.536	$P < .05$	+
Trial III	5.912	$P < .05$	+
Trial IV	0.881	$P > .05$	-
Trial V	0.855	$P > .05$	-

N = 6 x = 2
P = 0.344, N.S.

Research Hypothesis (a). The hypothesis that the mean of treatment X will exceed the mean of the control group is confirmed (Table 165) for the S-D.

Table 165

Sign Test of Adjusted Mean Scores for Experimental X and Control C for all Trials on the S-D

Trials	Exp. X	Control C	Difference
Pilot I			
Pilot II	133.979	122.864	+
Trial I	117.276	108.695	+
Trial II	118.091	105.729	+
Trial III	118.961	106.889	+
Trial IV	116.609	112.833	+
Trial V	112.265	106.937	+

n = 6 x = 0
P = .016, Significance for Exp. X

Research Hypothesis (b). Since the mean of treatment Y exceeds that of the control group, the hypothesis is confirmed. The social reinforcement condition is, therefore, better than the control condition.

Table 166

Sign Test of Adjusted Mean Scores for Experimental Y and Control C for all Trials on the S-D

Trials	Exp. Y	Control C	Differences
Pilot I			
Pilot II	126.045	122.864	+
Trial I	119.629	108.695	+
Trial II	118.878	105.729	+
Trial III	114.449	106.889	+
Trial IV	117.257	112.833	+
Trial V	114.597	106.937	+
N = 6			x = 0
P = 0.016, Significance for Exp. Y			

Research Hypothesis (c). The data illustrating the differences between the experimental groups (X and Y) reveal a gain in favour of the experimental group Y (Table 167). Therefore, the hypothesis as stated cannot be accepted, and instead the converse is obtained.

Table 167

Sign Test of Adjusted Mean Scores for Experimental X and Experimental Y for all Trials on the S-D

Trials	Exp. X	Exp. Y	Group With Higher Score	
Pilot I				
Pilot II	133.979	126.045	X	
Trial I	117.276	119.629		Y
Trial II	118.091	118.878		Y
Trial III	118.961	114.449	X	
Trial IV	116.609	117.257		Y
Trial V	112.265	114.597		Y

N = 6 x = 2
P = .344, N.S.
(Preference by Observation: Exp Y)

The hypothesis suggesting gain in the direction of the modelling group is not tenable in that this group did have fewer gains. We must accept the null hypothesis. Social reinforcement was noticeably higher than modelling on the semantic differential. Although this preference was not significant, it was nevertheless important since in four times out of six trials it occurred.

The Self-Acceptance Scale, S/A

Null Hypothesis: There are no significant differences among the experimental and control conditions on post-test means on the Berger Scale of Self-Acceptance (S/A).

Table 168

Sign Test of Adjusted F Values for All Trials on Self-Acceptance

Trials	Adjusted F	Significance	Gain
Pilot I	3.402	$P < .05$	+
Pilot II	5.088	$P < .05$	+
Trial I	1.235	$P > .05$	-
Trial II	2.777	$P < .05$	+
Trial III	6.009	$P < .05$	+
Trial IV	4.427	$P < .05$	+
*Trial V	2.439	$P < .10$	+

N = 7 $\qquad x = 1$
P = .062, Significant
*Note significance: See "Treatment of Data - Significance" in Chapter 8

On the basis of the sign test of the adjusted "F" values on self-acceptance, six of the seven trials showed significant differences among the three groups in the experiment (Table 168). The probability value of 0.062 is greater than the .05 level but well under the 0.1 level. We, therefore, reject the null hypothesis, noting that the experimental groups were better than the control group on this variable.

Research Hypotheses (a) and (b). That the experimental groups were better than the control group on self-acceptance is supported by data showing comparisons of adjusted means with the control group (Tables 169, 170). The Hypotheses are accepted as each of the experimental groups is significantly better than the control group.

Table 169

Sign Test of Adjusted Mean Scores for Experimental X and Control C for all Trials on S/A

Trials	Exp. X	Control C	Gain
Pilot I	53.991	47.284	+
Pilot II	48.919	43.494	+
Trial I	53.586	49.891	+
Trial II	58.031	54.081	+
Trial III	54.634	48.978	+
Trial IV	55.934	51.431	+
Trial V	54.376	48.982	+

N = 7 x = 0

P = .008, Significant

Table 170

Sign Test of Adjusted Mean Scores for Experimental Y and Control C for all Trials on S/A

Trials	Exp. Y	Control C	Gain
Pilot I	54.819	47.284	+
Pilot II	50.365	43.494	+
Trial I	54.093	49.891	+
Trial II	55.487	54.081	+
Trial III	55.888	48.978	+
Trial IV	60.235	51.431	+
Trial V	56.042	48.982	+

N = 7 x = 0

P = .008, Significant

Research Hypothesis (c). Comparison between the two experimental groups on self-acceptance reveal a significant difference in favour of the social reinforcement condition (Table 171).

Table 171

Sign Test of Adjusted Mean Scores for Experimental X and Experimental Y for all Trials on S/A

Trials	Exp. X	Exp. Y	Group With Higher Score
Pilot I	53.991	54.819	Y
Pilot II	48.919	50.365	Y
Trial I	53.586	54.093	Y
Trial II	58.031	55.487	X
Trial III	54.634	55.888	Y
Trial IV	55.934	60.235	Y
Trial V	54.376	56.042	Y

N = 7
P = .062, Significant
(Trend favours Exp. Y)

x = 1

The hypothesis suggesting that the mean of the experimental group X will exceed the mean of experimental group Y cannot be accepted. Instead, there was a significant difference in favour of experimental Y. Therefore, on all trials, the social reinforcement condition was better than the modelling condition on the variable of self-acceptance.

The Acceptance of Others Scale, A/O

Null Hypothesis: There are no significant differences among the experimental and control conditions on the post-test means on the Berger scale of Acceptance of Others (A/O).

Table 172

Sign Test of Adjusted F Values for All Trials on Acceptance of Others

Trials	Adjusted F	Significance	Gain
Pilot I	0.706	$P > .05$	-
Pilot II	3.721	$P < .05$	+
*Trial I	2.713	$P < .10$	+
Trial II	0.375	$P > .05$	-
Trial III	12.021	$P < .05$	+
Trial IV	6.851	$P < .05$	+
Trial V	4.794	$P < .05$	+

N = 7 x = 2
P = .227, N.S.
* Note significance: See "Treatment of Data - Significance" in Chapter 8

While the null hypothesis is accepted because it is not statistically significant, the evidence of differences lean towards the usefulness of treatment (Table 172). In five of the seven experiments there were significant differences among the conditions favouring the treatment groups. Considering the stringency of the sign test and the small N, there seems to be weak support towards the rejection of the null hypothesis. In terms of interpretation for treatment, the results are encouraging in the positive direction in respect of this variable.

Table 173

Sign Tests of Adjusted Means for Experimental X and Experimental Y Over Control C and Experimental X Over Experimental Y on All Trials for A/O

Trials	Exp. X	Exp. Y	Control C	X-C	Y-C	X-Y
Pilot I	55.482	53.565	52.753	+	+	+
Pilot II	51.791	51.388	47.820	+	+	+
Trial I	54.336	54.354	49.809	+	+	-
Trial II	54.860	54.331	53.607	+	+	+
Trial III	53.725	57.697	49.077	+	+	-
Trial IV	56.901	58.279	49.720	+	+	-
Trial V	54.767	54.742	46.591	+	+	+
				N=7	N=7	N=7
				x=0	x=0	x=3
				P=.008	P=.008	P=.500
				P<.05	P<.05	P>.05
				Sig.	Sig.	N.S.

Research Hypotheses (a), (b) and (c)

The hypothesis suggesting no difference between each of the experimental groups and the control group must be rejected (Table 173). Experimental group X was better than the control group and experimental group Y was also better than the control group. The hypothesis of no significant differences between the experimental groups must be accepted. Both the modelling and social reinforcement conditions were equally effective on acceptance of others.

Tennessee Self Concept Scale, TSCS

Differences among Experimental group X, Experimental group Y and Control group C on the post-test score means of the seven referent dimensions of the Tennessee Self-Concept Scale (TSCS) in Trials I, II and III are shown (Table 174).

Table 174

Symbolic Representation of Significance Levels of Adjusted F Values for all Sub-Tests of the TSCS in Trials I, II and III

Sub-Tests	Trial I	Trial II	Trial III
Total Positive	+	-	-
Self-Criticism	+	-	-
Physical Self	-	-	-
Moral Self	-	-	-
Personal Self	+	-	-
Family Self	-	-	-
Social Self	+	-	-
	N = 7	N = 7	N = 7

Since the results are largely to be correlated, no sign test is made here but the results are noted.

Only in Trial I did four of the sub-tests reveal significant differences among the three conditions. This scale has proved to be rather difficult for the subjects and, as was shown earlier, was not effective in detecting changes.

Table 175

Gains in Adjusted Means for X and Y Over C, and for X Over Y for all Sub-Tests of the TSCS in Trial I

Sub-Tests	Exp. X	Exp. Y	Control C	X-C	Y-C	X-Y
Total Positive	310.703	311.070	285.625	+	+	-
Self-Criticism	40.552	40.624	32.923	+	+	-
Physical Self	65.483	67.053	63.863	+	+	-
Moral Self	59.146	59.397	55.657	+	+	-
Personal Self	60.115	63.438	54.846	+	+	-
Family Self	63.353	60.068	54.879	+	+	+
Social Self	62.606	59.349	52.745	+	+	+
				N=7 Trend Favors Exp. X	N=7 Trend Favors Exp. Y	N=7 Trend Favors Exp. Y

Adjusted means for the scales of the TSCS in Trial I reveal that gains by the experimental groups over the control groups are uniformly positive (Table 175). The social reinforcement group showed definite gains over the modelling group. In five of the seven cases the experimental group Y (Social Reinforcement) was better than the experimental group X (Modelling). As in the case of the F test table, however, a significance test based on the signs would violate the independence condition, though the results are suggestive.

Table 176

Gains in Adjusted Means for Experimental X and Experimental Y Over Control C, and for Experimental X Over Experimental Y for all Sub-Tests of the TSCS in Trial II

Sub-Tests	Exp. X	Exp. Y	Control C	X-C	Y-C	X-Y
Total Positive	303.569	306.288	309.342	-	-	-
Total Criticism	34.956	36.529	33.814	+	+	-
Physical Self	63.670	66.193	63.236	+	+	-
Moral Self	55.702	53.833	58.865	-	-	+
Personal Self	61.670	63.397	63.232	-	+	-
Family Self	61.244	62.150	61.006	+	+	-
Social Self	61.284	60.715	63.002	-	-	+
				N=7 No Diff.	N=7 No Diff.	N=7 Trend Favors Exp. Y

The data for the TSCS in Trial II (Table 176) are noted for interest but further statistical treatment would be of dubious validity. This data are inconclusive with regard to the experimental groups and the control group. The preference for change results is noticeably in favour of Experimental Y over Experimental X. That is to say, Social Reinforcement gained more success than Modelling Reinforcement. In five out of seven cases, Social Reinforcement gained a higher score than Modelling.

Table 177

Gains in Adjusted Means for Experimental X and Experimental Y Over Control C, and Experimental X Over Experimental Y for all Sub-Tests of the TSCS in Trial III

Sub-Tests	Exp. X	Exp. Y	Control C	X-C	Y-C	X-Y
Total Positive	293.481	285.822	288.896	+	-	+
Self-Criticism	33.177	31.283	34.040	-	-	+
Physical Self	62.552	60.282	64.265	-	-	+
Moral Self	53.978	51.110	55.812	-	-	+
Personal Self	58.037	58.336	55.627	+	+	-
Family Self	59.287	59.350	58.862	+	+	-
Social Self	59.606	56.875	53.619	+	+	+
				N=7 No Diff.	N=7 No Diff.	N=7 Trend Favors Exp. X

The data for the TSCS in Trial III (Table 177) are examined in search of patterns of effectiveness among the three conditions. The Experimental X is better than the control four out of seven times in respect of the adjusted means. Experimental X was definitely not significant in terms of the control group. In terms of preference between the experimental groups, the modelling group was better five times out of seven than the social reinforcement group.

The Piers-Harris Self-Concept Scale (PSCS)

Null Hypothesis: There are no significant differences among Experimental group X, Experimental group Y, and Control group C on the post-test score means of the four

structured referent dimensions of each of the Piers-Harris Self Concept Scale (PSCS), namely, Behaviour plus Anxiety (Factors I and IV), Intellectual and Social Status plus Popularity (Factors II and V), Physical Appearance and Attributes plus Happiness and Satisfaction (Factors III and VI), considered in turn and the full scale. (This hypothesis applies only to Trials IV and V).

It must be observed that in the first three trials the Tennessee Self-Concept Scale was inadequate and complicated for the population of the study. The scale was not effective in differentiating among groups and for indicating short-term effects. In earlier chapters it was shown (Chapter 2, Chapter 3) that definite problems arise in criterion measures. So far in this study the general criterion measure of the personality or self-concept scale appears inadequate. This was suspected all along by the researcher.

For this reason a change was made to the Piers-Harris Self-Concept Scale in Trials IV and V. The PSCS was less complicated in structure and simpler in language. Even from this scale the results are not in accord with other measures. On the basis of such evidence the present study will not be able to recommend personality tests as useful for purposes of criterion measures in short term group counselling situations.

The data from the two trials on the PSCS are shown (Tables 178, 179). The sign test could not be used as N was too small and the assumption of independence among groups would be disregarded.

Table 178

Adjusted F Values for Four Sub-Tests on the PSCS For Differences Among Experimental X, Experimental Y and Control C in Trial IV

Sub-Tests	Adjusted F	Significance	Weight
I - Behaviour & Anxiety	1.234	$P > .05$	-
II - Intellectual and Social Status	2.721	$P < .10$	+
III - Physical Appearance and Satisfaction	1.822	$P > .05$	-
IV - Total Self-Concept	2.330	$P > .05$	-

Table 179

Adjusted F Values for Four Sub-Tests on the PSCS For Differences Among Experimental X, Experimental Y and Control C in Trial V

Sub-Tests	Adjusted F	Significance	Weight
I - Behaviour & Anxiety	13.254	$P < .01$	+
II - Intellectual and Social Status	10.924	$P < .01$	+
III - Physical Appearance and Satisfaction	8.147	$P < .01$	+
IV - Total Self-Concept	25.149	$P < .01$	+

Again, Trial IV applies to the Youth Training Centre where the subjects experienced difficulty with the test. Too much value cannot be placed on this assessment. Only in one sub-test in Trial IV, however, were differences among groups noted (Table 178). In the case of Trial V (Table 179) significant differences of a very favourable level of probability were gained. On the whole, the null hypothesis can

be rejected on this evidence for Trial V.

Table 180

Directional Gains in Adjusted Means for Experimental X and Experimental Y Over Control C, and Experimental X Over Experimental Y for the Four Sub-Tests of the PSCS in Trial IV

Sub-Tests	Exp. X	Exp. Y	Control C	X-C	Y-C	X-Y
I - Behaviour..	21.199	21.625	19.575	+	+	-
II - Intellectual..	19.863	20.403	18.334	+	+	-
III - Physical..	17.479	15.596	15.425	+	+	+
IV - Total..	58.936	57.419	53.144	+	+	+
				N=4	N=4	N=4
	Directional Gains by Inspection			Trend Favors Exp. X	Trend Favors Exp. Y	No Diff.

An examination of the adjusted means on the sub-tests of the PSCS indicated strong preference for the experimental groups over the control group (Table 180). In all four sub-tests each of the experimental groups was better than the control group. Either of the experimental conditions in Trial IV was equally effective.

Table 181

Directional Gains in Adjusted Means for Experimental X and Experimental Y Over Control C, and Experimental X Over Experimental Y for the Four Sub-Tests of the PSCS in Trial V

Sub-Tests	Exp. X	Exp. Y	Control C	X-Y	Y-C	X-Y
I - Behaviour..	21.513	23.350	18.837	+	+	-
II - Intellectual..	18.285	17.702	14.314	+	+	+
III - Physical..	17.632	17.655	13.712	+	+	-
IV - Total..	58.107	58.403	46.491	+	+	-
				N=4	N=4	N=4
	Directional Gains by Inspection			Trend Favors Exp. X	Trend Favors Exp. Y	Trend Favors Exp. Y

The adjusted means on the PSCS in Trial V showed strong preference for the experimental groups over the control group (Table 181). In the four sub-tests, each of the experimental groups did possess a higher mean than the control group. On the basis of a comparison between the two experimental conditions, the trend, therefore, favors the social reinforcement condition.

Applying Hypothesis A to Later Scores in Trials IV and V

Null Hypothesis: There are no significant differences among Experimental X, Experimental Y and Control C on the "later" score means on four variables, namely - S-D, S/A, A/O and PSCS. Since the results are largely correlated data, the assumption of independence cannot be upheld and as the number of cases is very small a significance test based on signs cannot be made. Patterns will be observed from the

results to see if they are suggestive of support for the research hypotheses.

Table 182

Gains in Adjusted Means for X and Y Over C, and for X Over Y in "Later" Scores for Four Variables in Trial IV

Variables	Exp. X	Exp. Y	Control C	X-C	Y-C	X-Y
S-D	115.05	116.93	109.82	+	+	-
S/A	54.51	54.14	51.75	+	+	+
A/O	54.49	54.84	50.37	+	+	-
PSCS	55.04	56.22	53.64	+	+	-
				N=4	N=4	N=4
				Trend Favors Exp. X	Trend Favors Exp. Y	Trend Favors Exp. Y

Patterns of the "later" scores were examined in order to determine that treatment was maintained in such a way as to cause the Experimental groups to retain their post-test superiority over the control group. The data on adjusted scores suggest that assumption and show that the experimental groups had higher mean scores than the control group, and that Experimental Y was better than Experimental X. This is suggestive of support for the first two research hypotheses. In the case of the third research hypothesis, that of $U_X > U_Y$, this data lend support to the converse in Trial IV.

Table 183

Gains in Adjusted Means for X and Y Over C, and for X Over Y in "Later" Scores for Four Variables in Trial V

Variables	Exp. X	Exp. Y	Control C	X-C	Y-C	X-Y
S-D	114.8	114.24	105.45	+	+	+
S/A	51.92	52.81	49.47	+	+	-
A/O	54.34	54.87	47.69	+	+	-
PSCS	54.43	56.56	50.01	+	+	+
				N=4	N=4	N=4
				Trend Favors Exp. X	Trend Favors Exp. Y	No Diff. Between X and Y

Again, in examining the adjusted means of "later" scores in Trial V, the suggestion regarding the maintenance of treatment effects becomes highly tenable. The data show that the experimental groups are superior to the control group, but that there is no difference between Experimental X and Experimental Y. This suggests support for the research hypotheses (a) and (b), but not for research hypothesis (c). In effect, our data suggest that the experimental groups continue to be superior to the control group four weeks after treatment terminated, and that each of the experimental groups was equally effective at that time.

External Independent Ratings (Nominal Scales)

Null Hypothesis B: On the basis of external independent ratings at the end of treatment, there are no improvements among Experimental group X, Experimental group Y and Control

group C.

Post Test Ratings

External ratings made by independent judges at the end of treatment supported the research hypothesis in the predicted directions (Table 184). Ratings on all trials for the experimental group X showed positive gains significant at the .05 level. The other experimental group revealed significance at the .05 level on all trials as well. The control group was not significant in all trials.

Therefore, as the experimental groups show gains, the control groups do not, we may consider there is some evidence for the superiority of the experimental treatments, but no suggestion of the superiority of one experimental treatment over the other, as each of the experimental groups did more or less equally well. Significant gains were revealed for each of the experimental conditions on all trials.

Table 184

Sign Tests of Gains for all Groups for Conditions X, Y and C on External Ratings of Observable Behaviour

Trials	Exp. X	Gain	Exp. Y	Gain	Control C	Gain
Pilot I	$P < .06$	+	$P < .06$	+	$P > .10$	-
Pilot II	$P < .05$	+	$P < .10$	+	$P > .10$	-
Trial I	$P < .06$	+	$P < .06$	+	$P > .80$	-
Trial II	$P < .02$	+	$P < .02$	+	$P > .05$	-
Trial III	$P < .06$	+	$P < .02$	+	$P > .10$	-
Trial IV	$P < .02$	+	$P < .02$	+	$P > .10$	-
Trial V	$P < .02$	+	$P < .02$	+	$P > .10$	-
	$N = 7$ $x = 0$ $P = .008$ $P < .05$		$N = 7$ $x = 0$ $P = .008$ $P < .05$		$N = 7$ $x = 7$ $P > .05$	

"Later" Ratings

The sign tests on each of the groups (X, Y and C) yielded predictable results in terms of the effect of treatment one month following the conclusion of the sessions (Table 185). Each of the experimental groups was better than the control group, although in the case of the experimental group X, significance was not attained at the 0.1 level or less. In this group two out of seven trials revealed negative gain. Therefore, only weak support for the research hypothesis (a) could be given. However, the Experimental X was much better than Control C.

The second research hypothesis dealing with Experimental Y showed that gains from treatment were significant at

the .06 level. This group was significantly better than the control group in which all trials showed non-significance in terms of treatment gains in support of the null hypothesis. With respect to the two experimental groups, it is clear that the modelling condition fell behind the social reinforcement condition. While both of the experimental groups did better than the control group, preference was given to the social reinforcement condition as the method yielding greater success.

On the whole, the null hypothesis of no change among groups on the maintenance of treatment effects can be rejected. The research hypotheses have all been confirmed for each of the experimental groups as well as for the control group.

Table 185

Sign Tests of Gains for Experimental X, Experimental Y and Control C on External Ratings One Month Following Treatment

Groups	Exp. X	Gain	Exp. Y	Gain	Control C	Gain
Pilot I	$P < .06$	+	$P < .06$	+	$P > .10$	-
Pilot II	$P < .05$	+	$P < .10$	+	$P > .10$	-
Trial I	$P > .10$	-	$P > .10$	-	$P > .20$	-
Trial II	$P < .02$	+	$P < .02$	+	$P > .05$	-
Trial III	$P > .10$	-	$P < .05$	+	$P > .10$	-
Trial IV	$P < .02$	+	$P < .02$	+	$P > .10$	-
Trial V	$P < .02$	+	$P < .02$	+	$P > .02$	-
	$N = 7$ $x = 2$ $P = .227$ $P < .23$		$N = 7$ $x = 1$ $P = .062$ $P < .06$		$N = 7$ $x = 7$ $P = .99$ $P > .95$ N.S.	

Group Analysis Scale (Self Rating Scales)

It was shown that the group analysis scale was a nine point self-rating measure with four sub-scales given to the two experimental groups in Trial IV and Trial V three weeks into treatment (pre), at the end of treatment (post), and four weeks following the end of treatment (later). Graphs illustrating group growth revealed that there was consistent development over time at the end of treatment for both trials, and showed that treatment effects were maintained four weeks following the conclusion of the session.

It would be seen that the control group could not be given this instrument since it did not meet for treatment. As a result the hypothesis tested referred only to the two experimental groups. Further, in this summary analysis, a significance test using signs could not be applied for reasons connected with the small number of cases and the lack of independence noted earlier in this chapter.

Post-Test Ratings

Null Hypothesis C: The treatments will have no effect on mean criterion scores of population treated by Method X and population treated by Method Y (i.e., $U_X = U_Y$), in Trials IV and V.

The adjusted F values for Trial IV (Table 186) were not significant. In other words, on the basis of the adjusted values we can say that there were no differences between the means of the two experimental conditions, a finding which suggests accepting the null hypothesis.

Table 186

Adjusted F Values on Four Sub-Scales of the G.A.S. of Differences Between Experimental X and Experimental Y in Trials IV and V

Sub-Scales	Adjusted F	P	Weight
TRIAL IV			
Self	0.48	N.S.	-
Other	0.06	N.S.	-
Group Growth	13.16	$P < .01$	+
Total	0.98	N.S.	-
TRIAL V			
Self	2.76	N.S.	-
Other	0.17	N.S.	-
Group Growth	4.09	N.S.	-
Total	3.84	N.S.	-

An analysis to test the research hypothesis, that Experimental X is better than Experimental Y, is shown for both Trials (Table 187).

Table 187

Directional Gains in Adjusted Means for Experimental X Over Experimental Y on Four Sub-Scales of G.A.S. in Trials IV and V

Sub-Scales	Exp. X	Exp. Y	X-Y	Trend
TRIAL IV				
Self	24.05	25.25	-	Favours Exp. Y
Other	26.28	26.72	-	
Group Growth	18.55	25.95	-	
Total	74.79	78.91	-	
TRIAL V				
Self	22.74	25.25	-	
Other	24.66	26.24	-	Favours Exp. Y
Group Growth	24.1	27.69	-	
Total	70.40	79.30	-	

Closer analysis of the pattern using the adjusted means reveals that for all the four sub-scales in Trial IV treatment Y exceeded treatment X. This finding is confirmed for Trial V as well. It should be pointed out that the gain by treatment Y over treatment X is a rather small one. However, in terms of the research hypothesis, we cannot accept it as it stands, since the converse favouring social reinforcement has been found.

"Later" Ratings

An attempt is made to see if maintenance of treatment four weeks later has been consistent with post-test scores. The findings (Table 188) reveal that in Trials IV and V with the

exception of one sub-scale, all other values were not significant throughout. This shows that both of the experimental groups were not different in terms of this variable and suggests that the null hypothesis may be accepted, confirming the same result received on the post test scores. We could, therefore, conclude that the methods maintained the same patterns four weeks following the termination of treatment.

Table 188

Adjusted F Value on "Later" Scores of the G.A.S. of Differences Between Experimental X and Experimental Y in Trials IV and V

Sub-Scales	Adjusted F	P	Weight
TRIAL IV			
Self	0.64	N.S.	-
Other	2.80	N.S.	-
Group Growth	4.60	$P < .05$	+
Total	2.81	N.S.	-
TRIAL V			
Self	0.25	N.S.	-
Other	0.17	N.S.	-
Group Growth	1.21	N.S.	-
Total	0.39	N.S.	-

The research hypothesis states that the mean of treatment X will exceed the mean of treatment Y in terms of "later" scores. On the basis of the data this hypothesis is not only tenable for Trial IV as in three of the four cases treatment Y was better than treatment X, and as such this supported the

finding of the post-test scores, denoting a confirmation of the maintenance of treatment effects in the short run (Table 189).

Table 189

Directional Gains in Adjusted Means for Experimental X Over Experimental Y on "Later" Scores of G.A.S. in Trials IV and V

Sub-Scales	Exp. X	Exp. Y	X-Y	Trend
TRIAL IV				
Self	25.56	24.04	+	Favours Exp. Y
Other	23.27	26.53	-	
Group Growth	25.51	28.88	-	
Total	74.15	80.64	-	
TRIAL V				
Self	24.67	23.63	+	Favours Exp. X
Other	25.61	24.68	+	
Group Growth	24.05	26.05	-	
Total	75.34	71.96	+	

In the case of Trial V three of the four sub-scales favored Experimental X. Therefore, the research hypothesis may be accepted. This, however, is not consistent with the finding of the post-test analysis for this trial in Table 187, but the differences were rather small.

General Discussion

The main principle tested was that a humanistic approach to group counselling utilising behavioural methods of modelling and social reinforcement can be effective with delinquents and behaviourally disturbed youths who display early signs of delinquency. Two pilot studies, three replications with delinquents, and two trials with junior high school students having behavioural problems have served to demonstrate that the method of reinforcement group counselling (according to Chapter 4) was

successful in showing gains on various tests in the experimental groups significantly better than in the control groups.

Hypotheses

In terms of the hypotheses in the study, it was demonstrated that the two experimental groups in each trial did better than the control group consistently. Where significance could have been attained by choosing the 0.10 level, it was followed. The reason for this was to be able to set a level which showed possibilities for treatment in the natural setting ("Treatment of Data: Significance" in Chapter 9). The hypotheses suggesting that the experimental group using modelling was better than the experimental group using social reinforcement could not be supported. While the two experimental groups were similarly effective, a slight edge has been noted in favor of the social reinforcement group. This is not to say that the modelling procedure has been any less effective.

A reason for the ascendency of the social reinforcement group over the modelling may be suggested. The leader observed during the process of treatment that the social reinforcement groups guarded their confidentiality literally. The social reinforcement groups did not allow any observers to take part in their deliberations, and were not willing to allow any observers at all. This group adhered closely to the agreement made at the commencement of treatment ("Observation of the Counselling Process" in Chapter 9). It would appear that members of the modelling group were more so on their guard in the midst of external models while members of the social reinforcement group did not have this problem of inhibition to face in that respect. The net result was that the members of the social reinforcement group were able to

come to terms with their concerns at least more quickly than their counterparts in the modelling group. This study in effect demonstrates two styles in reinforcement group counselling. These styles may have optimal possibilities with the appropriate population. This fits into the findings of the Grants (1959) regarding differential treatment needs for delinquents.

The hypotheses further showed that treatment effects were maintained after the sessions had ceased. It was demonstrated that the effect of treatment one month following termination placed the experimental groups in all trials ahead of the control groups. Again, the social reinforcement condition was slightly better than the modelling condition on the whole.

Instruments

In terms of the instruments used, it should be pointed out that the Tennessee Self-Concept Scale was used in the first three trials but was not a feasible device. This scale, somewhat like a general personality measure, was not useful for the groups under consideration since the majority of the members had difficulty in understanding it. In addition, this self-concept scale possesses a reasonably high reliability and appears to give stable results at a single sitting. The effect, therefore, was that it was inappropriate to detect gains when used experimentally. The Piers-Harris Self-Concept Scale was used in the fourth and fifth trials with the same outcome. Although this scale was simpler in structure it was characteristically similar to the Tennessee

Self-Concept scale. It appears that the same objections were applicable, as the results were not consistent with those of the other instruments. It is clear that personality scales or global devices do not appear appropriate for judging gains in particular behaviours arising out of short term treatment. This supports the view expressed by Dinkmeyer and Muro (1971) and Mahler (1971) on the need for specificity in process studies and outcome variables as shown in Chapter 3.

External Ratings

As another device for ascertaining growth through reinforcement group counselling, ratings from external observers were used. This device proved highly effective and in the majority of cases the experimental groups were significantly better than the control group. This would seem to be a very effective method for the assessment of group counselling effects. It does however involve much more staff than may be in a position to do the necessary ratings. While the involvement of staff might be a useful undertaking in an institutional setting, it might not be feasible in a school setting. Therefore, inasmuch as this form of evaluation might be beneficial, it might not be fully practical.

Self-Ratings

The means of assessment that was most useful and revealing was the individual rating scale. A scale was developed for this study, namely, the Group Assessment Scale of Self and Others (Chapter 9). This scale was used only in the fourth and fifth trials and with the experimental groups. There were

definite gains from stage to stage in the experiment. In terms of the covariance two group analysis on this scale the null hypothesis was generally accepted, that is to say, each group was as effective as the other in promoting change. This finding was upheld one month following the termination of treatment. However, in terms of the adjusted means the social reinforcement condition gained a slight margin over the modelling condition.

The individual rating scale has been appropriate for assessing the progress of treatment. It is a self measure that places a serious responsibility upon the individual group member. We note that the purpose of treatment is to develop self, the relationship with others and decision making that involves self and others. Therefore, as a part of the treatment members should be trained in developing strategies for monitoring growth. The rating scale allows the client to share the responsibility and as such attempts to put the method of rational emotive therapy and reality therapy into practice (Ellis, 1970; Glasser, 1975). Support for a self measure was given by Hansen (1972) in his study on model reinforcement in group counselling with elementary school children, a study in which he used sociometric status as a criterion. The self measure was simple to understand, it made clients reflect on their own involvement, and it revealed precise results. In this study it was not used with the control group and thereby could not be used to make a comparison of all groups in the experiments. It could not be used with the control group since it called for judgements

to be gained from group involvement. A rating scale designed to tap behaviour out of general activity might be more readily applicable for both contact groups and no contact groups.

Delinquents and Behaviourally Disturbed Youths

The treatment using the rational and realistic verbal approaches coupled with reinforcement group approaches seemed effective for the delinquent groups as well as those who displayed delinquency proneness. That the treatment worked well in both instances could be supported by the observers as well. The researcher's observation is that while the process may flow much more smoothly in an institution as there is a captive clientele from session to session, this might not be the case in the school where absenteeism and sudden school activities may cause changes in the research schedule. In two instances in the school, the vice principals were surprised to note the improvement in attendance at group sessions among those who normally would have been away from school more often. The treatment process had an appeal for these groups. A problem experienced was that the delinquent in the institution had much more difficulty in reading and responding to the instruments than the behaviourally-disturbed youth in the junior high school. The institutionalized delinquent could not respond fully to any instrument that had a fairly sophisticated format. The problem of learning disability among juvenile delinquents was clearly indicated. There are few current studies beginning to investigate this area, so it would be important simply to pinpoint the problem as further analysis is out of the scope of the present investigation.

In connection with the experiments conducted for the present study, this problem might be partly responsible for the inconsistent results in part from self-concept scales.

Replication of Studies

In his study on groups, Slaikeu (1973) mentions the problem regarding replication of such studies. He maintains that there was little evidence to show the procedure adopted in carrying out research. The deficiency in the reporting of group counselling studies made replication of studies and verification of treatments nearly impossible (Ohlsen, 1970; Fullmer, 1971; Mahler, 1971; Gazda, 1971; Dinkmeyer and Muro, 1971). The present research was cognizant of this concern and sought to improve upon this factor. A manual for the conduct of reinforcement group counselling had been included in Appendix A. This manual is supplemented by a detailed account of the approach recorded in Chapter 9. It is believed that the procedure adopted can help to make replication of a study on reinforcement group counselling possible. It can also serve to make further refinement of the approach a precise follow-up process.

Process and Criterion Variables

It was pointed out that in group counselling the criterion has been the source of problems. Along with this is the matter of specificity of the process variables. This theme was echoed throughout the review of literature. The present research has attempted to push this aspect of the technique ahead. The whole purpose of counselling was to assist the individual to come to terms with self and others

and thereby to make more reasonable decisions to affect himself and his relations with others positively. In this population of the behaviourally disturbed youths in institutions or in schools, the major problem seems to be a conflict with the values of society and a failure to adapt the self to the apparently hostile "other" person or persons. Therefore, the purpose of treatment was specified as the self and its relations with others.

The goal of treatment was to attain some change in the process variables on the basis of certain measures. Since treatment was short-termed it would be illogical to expect change in the total personality. As suggested early in the study, one did not expect the personality tests to show marked changes, especially since research using personality measures was not fully conclusive. The present study utilised three other forms of measures in order to test their differential effectiveness. The measures which tested the expectations of growth in self and relationship with others proved effective. The rating scale designed to involve individuals in self-assessment throughout treatment was highly positive and effective. Finally, the external ratings yielded meaningful results.

Delinquency Treatment

The study demonstrated that it is possible to assist delinquents and behaviourally-disturbed youths to overcome their problems and live a more useful and fruitful adolescent life. The literature showed attempts at correction, but it has not been conclusive, except for work done in the state of California which, as shown in Chapter 2, has been experimenting

in and trying out various innovations.

For group counselling or treatment to have meaning with the population under study, two major approaches must be undertaken concurrently. It is for this reason that a humanistic form of verbal insight counselling was inextricably mixed in with a behavioural method using modelling and social reinforcement. The client was challenged and had to express himself on the one hand; and he had to involve himself in pertinent activities and relearn new ways of behaving on the other hand.

It seems that research of this nature has become most appropriate in recent years. The increase in problem adolescents warrants the application of the reinforcement group counselling approach. The inmate population throughout Canada has posed problems for the administrations, reaching very high and severe proportions. Many methods of approach seemed to have failed. This study has demonstrated that reinforcement group counselling can work in the adolescent population in a minimum security institution. It would appear that it has possibilities for the young adult population.

The significant aspect of the approach that helped continuity was the factor of positive reinforcement. The approach emphasized the positive nature in each person and helped the individual to feel worthy and accepted. It seems that this factor could have accounted for a large part of the success gained.

Social and Modelling Reinforcement

Social reinforcement counselling allowed for greater confidentiality and positive attention given to each one throughout treatment. It allowed for more openness within a trusting group situation. There was little exposure during treatment to significant others.

Modelling reinforcement involved models from within the groups and models from outside of the group. Models that were external came in at intervals and changed from time to time. There was no continuity and positive attention was given mainly in accordance with responses to the modelled behaviour.

It might be useful to note that the social reinforcement group did slightly better than the modelling group. In the case of the modelling group it would be useful initially to have models from within the group for some time, after which external models may be introduced. Further research is needed in this area.

The Treatment as Catalyst for Change

It would appear from the previous discussion that behavioural group counselling succeeded with our special population largely because of its emphasis on structure and technique than upon style and experience of the conductor. In this regard it seems that treatment factors have been largely responsible for the effectiveness of the present experiments.

In the first place all of the groups were carefully observed to see that when the experiment was not in progress, no one group received any special treatment. In fact, this was not possible as individual subjects were scattered

throughout the institutions and no cliques were identified.

Again, the use of a single leader may have an effect, but this has been a factor common to many reported studies in group counselling research. In the present study the writer anticipated this concern and, therefore, utilised members in joint leadership throughout the sessions. In addition, a manual outlining details of the procedure and specifications provided for objectivity and reliability, and served to standardize the methods.

Further, any other of the actual school procedures (classroom teaching, physical education, etc.) would have little effect on the scores of the measures, as the results of standardized tests of the kinds used are not supposed to rise in the short run. But, in the present study, the scores increased consistently. Therefore, we must conclude that the method of treatment had a direct impact on this change.

Moreover, the treatment procedure was monitored by observers at various times as reported earlier. This served as a validity check on the leadership variable. However, scope for flexibility and style was built into the method.

In terms of experience of the leader, it might be argued that without experience a leader may be unable to gain positive results. While a certain amount of experience is necessary, the methods require a knowledge of techniques as well. The application of these techniques was the central element of the treatment. These techniques involve training in problem solving, in applying reinforcement principles, in utilising two methods of counselling, and in permitting an

inductive approach to learning, thereby allowing students to take the responsibility in arriving at decisions for themselves. These are some of the techniques that could be replicated and they were followed in the present research. Experience is only an integral part of the approach and cannot work as a substitute for the methods used. Therefore, trained group leaders with varying experience are likely to obtain similar results if they follow the approach prescribed.

In short, there were no special treatments for any groups; there was joint leadership as well as a guide of specifications; there was definite growth gained from standardized tests; there were observers who monitored and served to validate the methods; and there was an emphasis on techniques for the main part in the application of treatment: all of these while allowing scope for flexibility and style. It is only as a result of these factors working in combination that change in a positive direction resulted. For these reasons, it is concluded that change can be attributed to the fact of the effectiveness of treatment methods in this study.

Synopsis of Results on All Hypotheses

A summary of the results of testing hypotheses of the form stated in Chapter 8 is given in this section.

The main hypothesis was concerned with the differences between pre-test/post-test change score treatment means on the semantic differential scales. Using the analysis of covariance and the sign test on F values, the hypothesis was not fully supported (Table 164). In four of the six trials

there were significant differences in favour of the experimental groups over the control group. The results on adjusted mean scores favoured the modelling group and the social reinforcement group over the control. Social reinforcement showed a slight preference over modelling reinforcement.

The same hypothesis was concerned with differences among groups on the self-acceptance scale and the acceptance of others scale. The results indicated that significant differences were evident in terms of self-acceptance, and there was positive difference in terms of the scale of acceptance of others (Table 168 and 172). Significant differences on the two scales occurred on the adjusted means. Social reinforcement was favoured on self-acceptance, and both social reinforcement and modelling were equally effective on acceptance of others.

The same hypothesis was concerned with differences among groups on the sub-scales of the Tennessee self-concept scale in Trials I, II and III. The results (Table 174) indicate that there were little to no significant differences among groups.

The same hypothesis examined differences among groups on the Piers-Harris Self-Concept scale in the other two trials (IV and V). The results indicate that in Trial IV with the delinquent population no significant differences were gained, while in Trial V with the Junior High School population, significant differences were readily gained (Tables 178, 179). On the adjusted means, however, the two experimental groups were better than the control group, and

social reinforcement was just barely favoured over modelling reinforcement.

The second hypothesis adapted from the main hypothesis in format for nominal rating scales was concerned with differences among groups on the basis of external independent ratings from teachers and/or counsellors. The results indicated that each of the experimental groups showed significant gains and the control group did not gain significance. Both of the experimental groups did equally well (Table 184).

The third hypothesis for self rating scales examined differences between the means of the two experimental conditions measured by the Group Analysis Scale in Trials IV and V. The results revealed that there were no differences between these experimental conditions, and suggested acceptance of the null hypothesis. On the basis of the adjusted means, however, the social reinforcement condition was favoured over the modelling condition. Curves illustrating group growth indicated growth in the two experimental groups over time.

Common to the second and third hypotheses, differences of external ratings and self ratings in the effect of treatment one month following the termination of the experiment were examined. The results revealed significant differences among the groups in all trials favoring the experimental groups (Table 185). In the case of Trials IV and V, no differences were found between the experimental groups (Table 188), showing that they were equally effective. It was concluded that treatment was effective and that the effects were maintained for some time following the

conclusion of the treatment.

Summary

In summary, to support the limited work done in reinforcement group counselling, this study has demonstrated, through seven replications, that the experimental groups using two varieties of treatment did consistently better than the control groups. It has revealed that an approach using humanistic and behavioural methods in group counselling works successfully with the delinquent and behaviourally disturbed youth. It has been specific in regard to process and criterion variables. The use of measures that involve self ratings placed responsibility for judging growth upon the client himself, which is in itself a central part of treatment. The study has provided a manual and detailed procedures so as to facilitate replications. Finally, treatment effects were demonstrated to be maintained one month following the termination of group counselling, in favour of the experimental groups.

CHAPTER 18

SUMMARY AND CONCLUSIONS

This chapter includes a brief summary of the study. Conclusions are drawn from the results obtained in terms of the nature and approach to group counselling which utilised a humanistic and behavioural model. Certain pertinent implications for the school and training institutions are made and suggestions for further investigation are presented.

Summary

The aim of this study was to develop a humanistic approach to group counselling involving the principles of learning theory. A model using rational methods of verbal counselling in the group setting along with modelling and social reinforcement was designed. This model was applied to delinquents and behaviourally disturbed youths mainly in the Province of New Brunswick, Canada, with pilot studies performed in London, England.

The purposes of the study were as follows:

1. To take part as leader in the experimental treatment of delinquent and behaviourally-disturbed youths using modelling reinforcement and verbal or social reinforcement in group counselling.

2. To use various pertinent attitudinal measures and to explore the use of self rating devices in order to improve upon the measurement of treatment outcomes.

3. To develop a model of group treatment to serve as a guide for training and replication.

4. To test the effectiveness of four types of instruments utilized in the differential measurement of treatment outcome.

The study did possess two major limitations to make it more effective in the school and institutional settings. A separation of experimental and control groups did not take place, and care was taken to avoid any contamination of treatments. The confidentiality of the research kept this problem reduced to a minimum. Another limitation was that the researcher had to act as group leader, and this was done throughout the study. The reason was that the research was novel and the leaders were scarce, and treatment methods would not be logically comparable if the leader variable had been compounded.

Research Studies

Various pertinent studies were reviewed in the major theoretical reaches of this research. Group Counselling after Cartwright (1951), Gazda (1971), Ohlsen (1970), Dinkmeyer (1968), Mahler (1971), Fullmer (1970), Dinkmeyer and Muro (1971), Yalom (1970), and Hansen et al (1976) emphasised structure, dynamics and research. Significant among the studies were the expression that research in group counselling has been burdened with problems, such as the problem of replication which the present study attempted to ameliorate.

These studies called for specificity in the nature of outcomes and the evaluation of results, and served to guide the basic direction of the research under consideration.

In order to devise a manual to serve as a treatment guide the works of proponents in the field of modelling were examined for pertinent strategies (Bandura, 1969, 1970; Krumboltz et al, 1967; Hansen, 1969). Verbal conditioning procedures to act as social reinforcers were also examined (Argyle, 1967; Krasner, 1955; Sulzet and Mayer, 1972).

Rational Emotive Therapy was investigated in order that the use of challenge and the step wise procedure leading to carry over assignments may be employed in the experiment (Patterson, 1966; Ellis, 1962, 1970, 1973; Arbuckle, 1967). As a method in its own right, RET has been used in groups with success.

Studies on delinquency and delinquency proneness using group counselling were largely exploratory and did not clearly possess replicability. Many studies showed that there was promise in regard to group counselling as a method of treatment but preventive work might be more useful with this population (Commins, 1971; Kvaraceus, 1945; Dell, 1963; Hall and Waldo, 1967; Baker and Spielberg, 1970; Venezia, 1971; Cortes and Gatti, 1972; West, 1972; Polsky, 1962; Warren, 1972; Wilfert, 1973; McCoy, 1973; and Felker, 1973). It was noted that group counselling was found to be discouraging from a scientific standpoint (Slaikeu, 1973). While studies reviewed by Slaikeu reported successful results, they fell short of scientific sophistication and were limited in terms of replication and usefulness. This analysis influenced the present research to demonstrate both success from treatment

and capability for replication and application.

In the field of reinforcement group counselling, fewer experiments were reported with delinquents and the behaviourally disturbed. Various approaches for utilising models in group counselling were advanced (Rose, 1972; Caplan, 1957; White, 1970; and Nye, 1973). Some authors felt that the use of models in studies of this nature has been minimal (Goldstein et al, 1973; Hansen, 1972). Various techniques from the research in reinforcement group counselling were used in this study and the suggestion by Woody (1968) of integrating verbal insight counselling with behaviour modification principles was adopted in the group setting.

Results

The results of the main hypothesis that applied to the interval scales showed that for the most part the experimental groups were better than the control group and that this finding was maintained one month following treatment. The second hypothesis dealing with rating scales favoured the experimental groups at the end of treatment and in the short run following treatment. The third hypothesis dealing with the self rating scales showed that the two experimental groups were as equally effective, although the social reinforcement group was preferred by a very slight margin. This finding was maintained after treatment.

As a result of this study both the modelling as well as the social reinforcement conditions seem viable techniques for the population studied.

Conclusions

On the basis of this study, the following conclusions

are advanced:

1. Group counselling using modelling reinforcement and social reinforcement is effective in assisting students who have become delinquents and those who have the tendency for delinquency proneness.

2. With a population that has fallen into conflict with society and developed dissonance in terms of self and others, a technique using humanistic counselling methods coupled with behavioural methods whereby subjects can relearn new approaches seems to be successful. The techniques tested in this study have merit and can be recommended.

3. From the results of the study it would appear that a developmental form of self-assessment has greater merit than a personality scale. The self-assessment adds to the expectation of responsibility and becomes part of the total treatment process, while the personality measure is rather general and non-specific.

4. The form of evaluation must be on the area in which the treatment is centered. Treatment must be specific or largely so and then it follows that evaluation could be based on that facet which is under consideration in terms of treatment.

5. In the study it was shown that the behaviourally disturbed youths who showed signs of delinquency proneness responded favourably to treatment. It would be in the best interest of the school and education to attack the problem early, therefore, making treatment a preventive process rather than a clinical one after the fact.

6. A manual of the treatment process was produced along with a detailed description of the procedural steps. This will help to facilitate replication through further studies and training of leaders in the approaches.

Implications

(a) The implication for treatment is that preventive work can be done using the combined humanistic/behavioural technique instead of verbal methods which have revealed only sparsely conclusive results. This approach will be able to reach various clients who respond to differing forms of treatment.

(b) The implication for schools is that the approach can be applied in the natural setting with a fair number of students without disturbing staff-student ratios. Preventive work can readily be accomplished by the school and thus cause a reduction of the number of students who may, without assistance, deteriorate to institutions for the delinquent and maladjusted.

(c) The implication for institutions is that this approach allows the student to become involved in a meaningful way. A lot of variations could be made since the students are like a captive audience. The approach could have a spiral effect in the residential setting.

(d) The implication for reporting group counselling is that it would help researchers to be more specific in terms of process and outcome variables. It is possible to state the method of approach followed in precise terms and to report on what aspect of the person did the group process concentrate.

(e) The implication for measuring group counselling gains deals with the evaluation techniques used. It was shown that global personality instruments lead to inconclusive and somewhat mistaken results. Some of the better attempts

used objective rating scales or sociometric devices. This study favoured a self-evaluation. In the face of continuing research, the experimenter must consider this problem seriously before embarking on research in group counselling.

(f) The implication for a group counselling manual or guide is that it should not be followed literally. If another study following a different aim or treatment expectation is to be performed, then the guide from this study must be amended to suit that particular aim.

(g) The implication for training is that if any teacher or trainer wants to embark on group counselling, a certain amount of training as a group member and as a leader is necessary before expertise can be attained. The weakness in the conduct of group counselling by the lay person in the field or school or institution is the lack of training to undertake the activity. The method researched in this study will not work in untrained hands.

Recommendations for Further Research

1. The results obtained in the present study suggest that reinforcement group counselling is effective among delinquents and behaviourally-disturbed youths at the junior high school level (13 to 16 years). Further research should be undertaken to determine long-term effectiveness with samples of varying sizes.

2. Further investigation and experimentation with the use of modelling reinforcement and social reinforcement should include the provision of follow-up sessions for some time after the conclusion of treatment. This might be accomplished by providing a bi-weekly treatment session for

the first three months with subsequent monthly treatment sessions to the end of six months or a year, at which time the client should have adjusted gradually.

3. The development of a manual with exercises, instructions and activities after the conclusion of treatment would enable discharged students to have suitable and available reference material for practice.

4. It would be valuable to develop a training plan for leaders among teachers and institutional counsellors so that further experimentation of the approaches could take place using the leader variable. Differences between male and female leaders might be researched. The approaches might be tried with girls as well as with mixed groups.

5. It is obvious that those two related approaches (Modelling and Social Reinforcement) might appeal to clients differentially. Further investigation might be made to ascertain what style of leader favours a particular approach and the type of students who favours a particular approach.

6. It might be useful to investigate the use of various types of models that may be used with the population under consideration. Various forms of social reinforcement or various social skills approaches might be explored.

7. Further investigation employing reinforcement group counselling should explore the development of reliable indices to assess before and after treatment data. This might include self ratings scales, clinical measures, sociometric devices, external rating scales, or an index revealing anxiety states and relaxed characteristics. It might also include the use of the video tape to monitor the subjects'

involvement. There is ample scope for exploration in this regard.

8. Finally, further investigation is needed to apply these approaches to other sub-populations in the school such as among those who wish to terminate a negative behaviour as in the case of alcoholism, nailbiting, stealing, truancy, aggressiveness, and the failure to make and keep friends. It can also be applied to deal with concerns of adolescents and young adults particularly in dealing with academic, social, value and vocational problems that are rife and rampant at this level. Possibilities for the inmate population of a higher age level might also be investigated.

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APPENDIX A

Manual for Reinforcement Group Counselling

Devised by the researcher for purposes of the present study and to facilitate application of this procedure in the schools and social institutions.

May 1974

MANUAL - REINFORCEMENT GROUP COUNSELLING

Introduction

The manual will be used as a guide to the leader of the group and can be adapted to suit a changing situation. It is divided into ten units, each being able to be used for a session. Each unit covers a fair amount of material, and when the treatment must spread over more sessions, then the unit may be subdivided. The unit is structured to last approximately one hour, and so this could be split over two sessions with younger youths whose attention span might not match up to the length of the unit.

It should be observed that the guide refers to the principle of rational emotive therapy. In each session the leader attempts to derive from members the underlying concern or problem in their discussion and exchange. The ABC principle is applied in order to show the members what they are expressing verbally and what they are not expressing overtly. The members are taught to analyse the root cause of the problem, to challenge the irrational statements and to devise new ways of looking at their concerns. In each unit this has to be done and is noted by the terms problem analysis, challenge, and new outlook.

Since the purpose of the study is the development of a positive attitude towards self, an acceptance of others, and the interaction among self and others, the units are headed after this pattern. This guide could be used for a number of problems such as drugtaking, lack of motivation, and underachievement, but in each case as the purpose is

different one has to replan and retitle the stimulus material.

Each unit includes a group activity or group game. This provides attraction to the group and helps the member to develop a sense of purpose for group exchange and interaction. It does help to develop empathy and the idea of give-and-take or a sensitivity towards other people. These games are central to the purpose of the study, that of interaction between the self and others in a positive and beneficial manner.

Testing

Members are prepared for testing by being briefed on the kinds of measures to which they will respond. They are told that the questionnaires do not have right or wrong answers, but that they attempt to find out their own views towards various situations.

Pre-Testing

Intelligence or Aptitude gained from records or test

Eysenck Junior Personality Inventory

Semantic Differential

Tennessee Self-Concept Scale

Berger Self-Acceptance and Acceptance of Others

Piers-Harris Self-Concept Scale

Group Analysis Scale of Self and Others

Observation Rating

Post-Testing and Testing One Month Following Treatment

Semantic Differential

Tennessee Self-Concept Scale

Berger Self-Acceptance and Acceptance of Others

Piers-Harris Self-Concept Scale

Group Analysis Scale of Self and Others

Observation Rating

Note that the choice of tests will be different if a different purpose of reinforcement group counselling is taken.

Contents

Handbooks used in the Manual

Mill, Cyril R. (Ed.) (Exercise for Training Groups). National Training Laboratories, 1969.

Pfeiffer, J.W. and Jones, J.E. (1969) A Handbook of Structured Experiences for Human Relations Training, Vols. I, II, III, IV, V and VI.

UNIT I

Getting to Know Our Approach

(A) Introduction. The leader announces the stimulus topic for the meeting - a look at ourselves and others in order to help us to become better persons, and to give a chance to discuss our wishes and ambitions and that which gets in the way, so that we could jointly try to make suggestions as we

begin to know each other better. The method of approach is discussed with the group. Group members must make comments so that each person gets his chance without interruption, a game activity is undertaken, and comments again are made to link the topic and the game activity. Role-playing of the problems are made, and if there are no definite problems, different viewpoints are acted out. New viewpoints are put into practice by role rehearsal. A homework activity is given for work during the interval between sessions.

Note to leader:

Model. In the case of the modelling group a model (or models) is selected by teachers, and then ratified by the group. The model is called a coordinator. He will be reinforced for taking part and for making contributions for which he will be urged. He will not be reinforced for negative statements. He will be called upon to role-play in the early stages with the leader, and for this he will be highly praised.

Social Reinforcement Group. In this case, no one member is singled out as a coordinator. All members must be given equal time and reinforcement. Social reinforcers will be used in the form of praise or no praise, for making contributions and taking part in activities.

(B) Presentation of Data

Group members comment and give their views.

Some rules for our own groups are devised.

Confidentiality

Trust

Listening to the other person

Attendance

Freedom to express yourself without fear

(C) Group Activity

From Volume I Handbook:

(I) Getting Acquainted Triads - pages 2 and 3.

Goal - to facilitate involvement of individuals in newly-formed groups.

Group Size - Unlimited triads.

Time - 15 minutes.

Physical setting - triads separate from one another.

Process -

I Triads formed. Criterion - do not know other members.

II In each triad participants named A, B, C.

III Phase I

(a) Participant A takes 3 minutes to tell B and C as much about himself as he feels comfortable in doing.

(b) Participant B repeats process.

(c) Participant C repeats process.

IV Phase 2

(a) Together B and C take two minutes to tell participant A what they heard him say and what they infer.

(b) C and A repeat process.

(c) A and B repeat process.

Evaluation - By all members in one group.

(D) Group Exploration

Members role-play or enact the concern of this session.

Getting to know each other very well in dyads, then in triads. They may develop a dramatic skit on the spur of the moment. Let them comment on the difficulty to do this and challenge them on the reason for this.

Allow full expression in this section and let them observe themselves mentally afterwards.

(E) Group Development

Allow group members to take leadership to clear up problems brought up in the previous sections. Use the model first and reinforce him highly. Let members suggest ways of doing this.

(F) Group Resolution

Role rehearsal.

Learning new ways to get acquainted, to communicate, to listen, and to plan.

(G) Group Evaluation

What do you think about yourselves now?

How do you feel?

Some parting activity as a means of homework is suggested.

UNIT II

The Self - Physical, Personal, Family

(A) Introduction. The stimulus is announced and members are encouraged to volunteer information that they can comfortably give on themselves.

Who am I?

Where am I going?

How am I getting there?

Members are told that they have a few meetings to come up with answers, suggestions and criticisms. They are asked to talk about the things they like or admire of themselves. Later, they are asked to talk about the things they do not like of themselves.

(B) Presentation of Data

The model is taken as an example in the first case.

In the social reinforcement group the leader asks questions all around in order to initiate discussion. He elicits some aspect of physical or personal attributes the group enjoys.

(C) Group Activity

Page 11, vol. II Handbook.

5. Who am I: A Cocktail Mix - pp. 19 and 20.

Goal - To become acquainted in a non-threatening way.

Group Size - At least 10.

Time Required - 30 minutes.

Materials:

I One 8½ x 11 inch (approx.) sheet of paper with question, Who am I? at the top for each participant.

II Pencil and straight pin for each participant.

III Tape recorder and music.

Physical Setting - Large room for free movement.

Process -

I Participants allowed 10 minutes to write 5 key dimensions about themselves; legibility stressed.

II Sheets pinned to the front of each participant.

III With soft music in the background, the participants circulate in a cocktail party fashion but without speaking.

IV The facilitator asks participants to move on to another person every 2 minutes for five to eight meetings.

V After the non-verbal phase, the participants are told to return to two or three different people they thought would be interesting, based on their previous encounters. They may now speak. They are encouraged to ask questions which they ordinarily would not ask.

Evaluation - By members in a short group session.

(D) Group Exploration

Members dramatise or enact some good points about themselves and family and some puzzling points.

Allow full give and take as members see it.

Reinforce the model and those who follow the model.

Reinforce those who participate.

(E) Group Development

Let members take leadership in bringing the central issues into focus.

(F) Group Resolution

Select the main positive values from the session and impress them. Help members to formulate positive values on

"selves", and to learn to accept what appears to be different.

(G) Group Evaluation

How do you feel about yourself and family. What have we learned from our meeting.

UNIT 3

The Self - Social, Moral, Self Criticism

(A) Introduction. Introduce the topic for the meeting. Explain the terms social, moral, and self-criticism. Refer to the matter of criticism of fellow members of the group and prepare them for free criticism.

(B) Presentation of Data

In the modelling group, the model and leader examine themselves socially at first, then from the moral standpoint. The model is reinforced for his contribution so as to attract others to follow. Simple questions are used in the social reinforcement group to all members.

The social aspect should be easily developed - sports, going out, parties, play, meeting mates, pictures, trips.

The moral aspect must grow out of this to look at "rights" or "wrongs" of various actions including honesty and dishonesty.

(C) Group Activity

Vol. I Handbook.

22. Non-Verbal Communication, pp. 109-111.

Goals -

I To learn new ways of expressing one's feelings, independent of one's vocabulary.

II To express feeling authentically using non-verbal symbolism.

III To focus on non-verbal cues that one emits, often unconsciously.

Materials utilised -

I Old newspaper.

II Tape recorder of instrumental music.

Process -

A. Dyadic Non-verbal Experiences

1. Trust Fall: Partners stand, one with his back turned, with arms extended sideways, he falls backwards and is caught by his partner. Reverse roles and repeat.
2. Trust Walk: The partner closes his eyes and is led around blind - through and over things. Reverse roles and repeat.
3. Trust Run: Outside, one partner closes his eyes and is led by the other in a vigorous run. Reverse roles and repeat.
4. Progression: Partners sit facing each other, sharing their feelings about each other verbally. After two or three minutes, they sit back-to-back and continue sharing verbally. After an additional two or three minutes they sit face-to-face again and communicate without using words.
5. Line-up: The participants line themselves up in accordance with their influence in the group. The final

line should be satisfactory to all.

6. Feeling Music: Contrasting styles of music are played (romantic, rock, folk, etc.), and participants act out their feelings in dance.

(D) Group Exploration

Members enact some of the knotty concerns in this area. Full exchange is allowed and criticism of each other is reinforced.

(E) Group Development

The leader helps the group members to focus on central issues and lets some members take leadership themselves.

(F) Group Resolution

By means of the "ABC" method, the irrational statements are examined. Positive statements or alternatives are presented. The leader seeks to reinforce an attempt to look at the problems in various ways and to suggestion various methods of approach to bring satisfaction to self and at the same time to lead to general approval.

(G) Group Evaluation

What is the toughest problem in the area of morals? Why is there a problem between right and wrong? Who must determine right and wrong? What are some guides in solving this problem in everyday living?

UNIT 4

The Self - Identity, Self Satisfaction, Behaviour

(A) Introduction. The stimulus-topic is introduced and the

mode of approach is explained.

Questions: Who am I really? Who am I like? How do I get satisfaction? What propels me to do something? How do I behave?

(B) Presentation of Data

The leader could challenge the members or allow them to give explanations of themselves in groups of two, then three, and so on. He may allow them to give the positive side of the questions attention at first. Note that the model's initial contribution is highly reinforced and contributions by the model through clarification and amplification are recognised.

In the social reinforcement group, more group effort is praised and recognised.

Listening is important in this exercise.

(C) Group Activity

Vol. I Handbook.

8. Listening Trials, pp. 31-35.

Goal - To understand the necessity of listening to each other with comprehension as opposed to merely hearing words.

Group Size - Unlimited number of triads.

Time Required - Approximately 45 minutes.

Materials Utilised -

I Topics for discussion sheets.

II Questions for discussion sheets.

Physical Setting - Triads separate to avoid noise interference.

Process -

I Triads are formed.

II Participants in each triad A, B, and C.

III Topic sheets distributed (or told).

IV One person in each group act as referee and the other two as participants in a discussion on one of the topics. One will be speaker and the other the listener.

V The following instructions are given by the facilitator:

(a) The discussion is to be unstructured except that before each participant speaks he must summarize, in his own words and without notes, what has been said previously.

(b) If his summary is thought to be incorrect, the speaker or referee are free to interrupt and clear up any misunderstanding.

(c) Participant A begins. He is allowed to choose his own topic.

(d) Participant B will begin as listener and participant C as referee.

(e) The discussion progresses as follows:

1. After 7 minutes of discussion by the speaker and the listener, participant B becomes the speaker, participant C the listener, and participant A the referee. The new speaker chooses his topic.

2. After another 7 minutes C becomes the speaker.

VI After another 7 minutes the discussions are halted.

VII The facilitator distributes questions for discussion sheets and conducts a discussion based upon the questions.

Evaluation - By the group in session.

Topics for Discussion

1. Marriage	4. Work	7. Cost of living
2. The Family	5. Pop Music	8. Human Relations
3. My future	6. School is a bore	9. Other current issues

Questions for Discussion

1. Did you find difficulty in listening to others? Why?

2. Did you find difficulty in formulating thoughts and listening to others at the same time?

(a) Forgetting what you were going to say?

(b) Not listening to others?

(c) Rehearsing your responses?

3. Did others paraphrase your remarks in a shorter, more concise way?

4. Did you find that you were not getting across what you wanted to say?

5. Was the manner of presentation by others affecting your listening ability?

(D) Group Exploration

The problems on Identity and Behaviour are expressed frankly and role played.

(E) Group Development

Gropu members take leadership to pull together the

significant good points and the central problems.

(F) Group Resolution

Showing why the good points are useful to know are impressed. Various suggestions are deduced in this stage. Only new and positive methods are allowed at this time.

An observation activity is assigned by the group.

(G) Group Evaluation

What can I as an adolescent do to be looked at with better light?

What can I contribute to show that I am well-meaning?

What have I learned from the discussion?

UNIT 5

Others - Close to Me, Family

(A) Introduction. Members are shown that they could not operate well in living if they did not have people close to them. What do they think of their close family and relations? What do they think of you? How do you understand each other and why?

(B) Presentation of Data

Members are asked to throw in some ideas of their family or some other family they know. The model is reinforced for his contribution and others who follow his lead are immediately reinforced.

By allowing each member to answer initial questions, the social reinforcement group is approached. Awareness, empathy and feedback are important in this personal session.

(C) Group Activity

Vol. I Handbook

6. Group-on-Group Observation, pp. 21-22.

Goal - To become aware of an individual by focussing on him and attempting to empathize with him.

Group Size - Two groups of seven to ten. (Two groups of five for the present study).

Time required - Approximately one hour.

Materials - Paper and pencil if needed.

Physical Setting - Two groups sit in concentric circles facing inward. Alter egos (observers of participants) sit directly across from participants but in outer circle, as shown.

Participants Alter Egos

Process -

I Participants choose their partners (alter egos). The alter egos will also have an opportunity to be in the inner circle and they will have new partners as alter egos.

II Participants sit in the inner circle and alter egos sit in the outer circle, opposite partners.

III The facilitator instructs the alter egos to observe partners and be ready to give feedback on their behaviour in the group. The two points the alter egos must observe are his partner's effect on group

process and on group task accomplishment.

IV The inner circle group will participate on any structured activity chosen by the facilitator (my life, my feelings, my pleasures, my spiritual views, whats good for me).

V After 10 minutes of group process, the facilitator asks participants in the inner circle to form dyads with their alter egos.

VI Alter egos give their partners the feedback which they have gathered from observation.

VII The process is then reversed so that alter egos now are inner-group participants and participants become alter egos.

VIII When the process is reversed, new dyads must be formed to avoid any former defensiveness and to give members opportunity to establish a new relationship and receive feedback.

IX The facilitator introduces another structured exercise and the process is repeated.

Evaluation by the group in session.

(D) Group Exploration

Help members to try to express their satisfactions freely. Then get them to express their dissatisfactions.

(E) Group Development

Using the "ABC" approach, get members to challenge each other to find out what he is really saying that is the root problem. Empathy with various home problems will be greatly needed. Acting in the other person's place is very

useful.

(F) Group Resolution

With the assistance of the model and the individual member's leadership attempt to come to terms with the family situation. Help individuals to see the concerns in the light of the positive contributions they can make, or help members to understand each other's situations. Some home activity may be significant as a follow-up.

(G) Group Evaluation

How would you like your family to be?

What wishes do you have?

How should you as a member of the family act?

UNIT 6

Others - Friends and Mates

(A) Introduction. The topic is introduced and members are asked to look at the associationships that help and those that hinder or cause them to get into trouble. Why do they make friendships and what are the influence of food friends and poor friends are thoughts presented for consideration.

(B) Presentation of Data

The model and leader describe some of their best friends and leave the discussion open for others to join in. Qualities of best friends that are admired are written on sheets for discussion. The model and those who contribute are reinforced for making their contribution. In the social reinforcement group the discussion is left open and

those who take part are given encouragement.

(C) Group Activity

Vol. II Handbook

25. Group Conversation, pp. 2-3.

Goal - To develop a compatible climate and readiness for interaction in a group through sharing the commonalities of personal experience.

Sub-Goals:

1. To involve those who do not know each other or who have prejudices or resentments towards each other, by relating quickly at an affective level.

2. To give members of a group a feeling and appreciation for what appears commonplace in their lives.

3. To get people off the intellectual treadmill.

4. As an icebreaker.

5. For intercultural, interracial, interreligious sharing.

6. To integrate newcomers into a group.

Group Size - Twelve or more. With fewer than twelve the experience may become more intense.

Time - Approximately fifteen minutes or more.

Materials - Conversation starters form.

Physical Setting - Sit in a circle.

Process - The facilitator must provide a comfortable balance. He must be prepared to refocus the group on personal feelings and experiences if it shifts to intellectualizing. He must tactfully intervene if one member is dominating or

vice versa.

I The facilitator prepares the group, pointing out that this is group conversation, not group discussion. This is person-and-feeling centred where participants share experiences rather than opinions. He states that when a group exchange memories of joy or sorrow a warmth and closeness usually develops quietly and quickly.

II The facilitator chooses a general theme.

III The facilitator encourages conversation with descriptions of childhood experiences. Questions are asked to help members describe their experiences. Then allow the conversation to move to post-childhood experiences into the present.

IV The facilitator leads a discussion of the experiences.

Conversation Starters:

1. Other people usually . . .
2. The best measure of personal success . . .
3. Anybody will work hard if. . .
4. People will think of me as . . .
5. Nothing is so frustrating as . . .
6. I miss . . .
7. There are times when . . .
8. The thing I like about myself . . .
9. As a child I . . .
10. When it comes to girls . . .
11. Ten years from now, I . . .
12. Loving someone . . .

13. It is fun to . . .

14. The teacher I liked best was a person who . . .

15. I would like to be . . .

(D) Group Exploration

Let members express their feelings of the impact they have on their peers, and help them to develop clearer self concepts. Let them share experiences with other group members.

(E) Group Development

Get members to examine each other's views and challenge differences. Let them clarify their doubts and develop an understanding of peers. Problems arising from the interaction with friends should be scrutinized. Role playing is useful at this stage.

(F) Group Resolution

Summarise the problems regarding relationships with friends of both sexes. Seek to develop different ways to improve on these relationships.

(G) Group Evaluation

It is important to examine yourself personally to see if relationships with friends could be improved. Various nes methods could be tried out during the interim.

UNIT 7

Others - People in General

(A) Introduction. The topic is introduced not with the intent that each member will like every person he meets.

The topic will be examined to see whether toleration and understanding of people can be encouraged.

(B) Presentation of Data

Members write in points form some of the interesting things they see and observe about people, and some of the strange things. These are used to initiate discussion.

They examine adults, people of different cultures and races, people with different religious persuasion, and those in authority, etc. They look for likenesses and differences.

(C) Group Activity

Vol. II Handbook

43. Verbal Exercises Within Groups, pp. 98-101.

Selected Experiences for Group Meetings:

1. Pocketbook probe: To study trust phenomena, the group is divided into three parts, as follows: (a) those willing to have their pocketbooks, wallet, purse, or checkbook examined by others; (b) those unwilling to have these articles examined but are willing to examine others; (c) participants unwilling to do either. Members of group (b) examine the pocketbooks of group (a), with group (c) observing. Talking is allowed and encouraged. As soon as the examination period is over (approximately ten minutes), the group reassembles, observers report, and all members discuss their experiment.

2. Opposite behaviour: Participants are asked to try to experience the reverse of their feelings and to express themselves verbally and nonverbally.

3. Role trading: Two group members are asked to trade roles and try to "be" each other for a few minutes during the group meeting, to attempt to enhance empathy for each other.

4. Opening the gunnysack: When participants seem to be sitting on significant reactions to each other (gunnysacking), the facilitator asks them to take pencil and paper and write down what each cannot say to the others. These are collected, and the facilitator reads them aloud anonymously.

5. Intimate statements: Group members are asked to write a series of intimate statements about themselves. Then the group is asked to decide what to do with these data - to have them read aloud, anonymously or not, to determine who is willing to read his statements, etc.

6. Giving and receiving help: Groups of four or five participants are formed. Member A takes seven minutes to relate an urgent, real problem which he has. Member B takes ten minutes to try to help him by raising questions. Then member C tries to help by sharing his own experiences and by giving recommendations. Member D (and/or E) observes. Then A reports how he felt while receiving help from B and C. Member D gives his observations, and the four discuss their experience. The process may be repeated with roles switched.

(D) Group Exploration

Get members to express their experiences, both negative and positive, about people, and the impact people have on

them. Let them note that in our society they are going to interact with people in different ways.

(E) Group Development

By means of demonstration, let members pull out the main problems they feel they encounter with people at large.

Examine and challenge these statements, and seek to find out by questioning and group deliberation, what are the underlying reasons for making assumptions and generalisations.

(F) Group Resolution

Let members attempt to further attack the assumptions in order to present new ways about thinking of the problems.

(G) Group Evaluation

Let members summarise the good and bad points in their thinking about people. Let them put the suggestions into a useful pattern for their practical experience.

UNIT 8 AND UNIT 9

Some Behaviour Problems and Solutions

(A) Introduction. Advise members that since they understand the approach of trustfulness, openness and frankness, we want to be free to look closer at some of our own concerns which have caused unhappiness to self and others in some form.

- The model is strongly reinforced, for initiating discussion.

- Use questions to individual members in the social reinforcement group and reinforce accordingly.

(B) Presentation of Data

Start with simple problems at first and give some background and make a defence.

(C) Group Activity

Vol. II Handbook.

47. Microlabs, pp. 128-129.

Goals -

1. To demonstrate H.R. lab. training to interested audiences.

2. To accelerate the development of growth-producing norms, such as openness and attention to feelings, in the beginning of a laboratory.

Group Size - Unlimited.

Time - Depends on variations in the design.

Physical Setting - Enough space for free movement and small group meeting.

Process - Consists of some form of small group interaction observed and critiqued by others. It is a simulation of a human relations laboratory in a short time.

I The facilitator gives a brief introduction stating goals and purposes, and setting the expectation that the experience will be safe and real. He attempts to induce a mood for openness, genuineness and experimentation (5 - 10 minutes).

II Participants are asked to find a comfortable place to relax and to tune in to their feelings. They are directed to focus awareness on the pressure

points in their bodies and to assess how they are anticipating this experience. They pair off with anyone to share their feelings in the "here-and-now". Ten minutes.

III Groups of eight participants (five in this research) are formed.

IV Fishbowl design followed.

V An imaginary object game is played.

VI As a final activity group members participate in the "eye-contact" circle.

VII The facilitator leads a discussion of the entire experience relating the parts to typical laboratory design.

Vol. III Handbook.

68. Intergroup Meeting, pp. 91-92.

Goals -

1. To improve the relationship between two groups of people.

2. To explore how groups interact with each other.

Group Size - Two groups of not more than fifteen.

Time Required - Three hours.

Material Utilised: Large sheets of paper, pencils, masking tape.

Physical Setting - One large room for members of both groups, and two smaller rooms if possible.

Process -

I In a general meeting the facilitator discusses the goals of the meeting and the plan of events.

II Groups meet separately to generate two sets of data on the sheets of paper: How we see the other group, and how we think the other group sees us. (One hour or less).

III The two groups come together, and their spokesman post and explain the data. During this phase the facilitator helps members to listen and not to respond to the content of the feedback, but just to try to understand it. (30 minutes or less).

IV The two groups meet separately again to respond to the data and to plan how to process it. (One hour or less).

V In a general meeting members of the two groups share reactions to the feedback and make contacts across groups to follow through after the meeting. Diagnosis of the way the two groups are interacting is attempted. (30 minutes or less).

(D) Group Exploration

Expressing freely one's own individual concern is the central theme of this meeting. Get members to interpret using feelings.

Let members give each other feedback to test for understanding. Urge for a deep expression of concerns. Use drawing and dramatisation to illustrate.

(E) Group Development

Challenge the underlying beliefs that are at the root of the problems or concerns. Help each member to challenge what he is saying and to examine the assumption behind his

thinking.

(F) Group Resolution

Through an analysis of the major concerns have the members look for ways and means to readjust their thinking and attitude. Help them to formulate desirable and more fulfilling ways to approach personal matters.

(G) Group Evaluation

Let members assess themselves now and how they feel after divulging matters that disturb. Let them practice some new approaches as home activity.

UNIT 10

General Evaluation of Self and Others

(A) Introduction. The leader suggests that this set of meetings will come to an end with this session. He suggests that it would be useful to hear how they feel about themselves now and how will they control and direct their behaviour towards others. He also invites them to give some ideas of their feeling of the group in the past weeks.

(B) Presentation of Data

Allow members to make their contributions freely. Let them contribute ideas from the proceedings of the past sessions and ask them to suggest any concerns for challenge later.

(C) Group Activity

Practice in Observation - Empathy

LABORATORY FOR APPLIED BEHAVIOURAL SCIENCE

Exercise 5 (3)

Awareness of Self and Others

PURPOSE:

1. To sharpen awareness of one's own body and the incoming sensations.

2. Truly and carefully to see another person.

LIMITATIONS: Likely to be resisted by a group strongly work-oriented.

DIRECTIONS:

Part One

Sit quietly and concentrate on the feeling of being wholly yourself, and fully aware.

1. How are you feeling at this moment at the beginning? Answer to yourself before you read further.

2. Can you feel each part of your body, scalp, eye-muscles, tongue, throat, chest, stomach, abdomen, sexual organs, thighs, knees, calves, ankles, toes? Which are relaxed or tense? Imagine a centre around which all of you is balanced. Where is it? Answer silently for yourself.

3. Attend to your incoming sensations - via eyes, ears, smell, skin, sensations, viscera, muscle tensions. Make each vivid and clear. Still keep silent.

4. Think of yourself at this time (moment) in transition from all you have been in the past to what you are becoming. Still not speaking.

5. How do you feel? How different from your answer to question 1?

6. Now you may share with the group some of your experiences with body sensations, incoming sensations, the meeting in this moment of your past and your future, and your changing or constant feelings.

Part Two

1. Divide into dyads.

2. Silently examine your partner as he examines you: his face, his posture, his hands, his feet, his changing expression. Close your eyes and try to recall the sound of his voice. Imagine him mad, sad, glad, bad, or being very kind. Fantasize the touch of his hand.

3. Use his personality as the centre around which your own free associations move. What images come to you? What could become? Still silent.

Exercise 5

Page 2

4. In imagination, try to see your partner in a range of situations. What would he be like when:

(a) waking up in the morning

(b) busiest on his job; heavy pressures

(c) very relaxed - on vacation - away from it all

(d) annoyed to the point of an angry outburst

(e) facing tragedy or only a short time to live

5. Share between partners some of the experiences you have had during steps 1, 2, 3 and 4.

6. Repeat the above steps with another partner. If time permits, pair with every other member of your group.

7. Fill out and share Reaction Ballots.

Practice in Observation: 9

Empathy

PURPOSE: By making observations and comparing them with the group average, each member is able to check on his accuracy. In effect, he gets a measure of his empathy with the group feeling on several dimensions.

SETTING: This is a small-group task and should be used after the group has met several times and are beginning to know one another.

PROCEDURE: Stop the group about half an hour before time to adjourn. Give each member a copy of the observation sheet (9a) and ask that it be completed. Have one person tally the responses on newsprint; it can be done quickly if each person calls out his responses. Take an average of the estimates given for the (B) questions.

Each person may calculate his error score by finding the difference between his answer and the average estimate of the group. The error score is his measure of empathy; the lower the score, the greater the empathy.

ANALYSIS OF THE DATA: The answers to all (A) questions give basic group attitudes toward the session.

The error scores will show differences among the members in diagnostic skills or empathy with the group.

The questions with the lowest error score may be contrasted with those showing the highest error score to reveal areas where the group exhibits greatest disagreement.

MATERIALS: One copy of observation sheet (9a) for each member.

OBSERVATION SHEET

(Leave the Error column blank)

		A	B	Error
1.	A. Were you satisfied with the performance of the group?			
	B. How many of the members would you say were satisfied with the performance of the group?			
2.	A. Would it have been helpful if the less talkative members had expressed their opinions more readily?			
	B. How many members of the group will agree?			
3.	A. Do you feel the discussion was dominated by two or three members?			
	B. How many will agree?			
4.	A. Did you have any feelings of irritation during the discussion?			
	B. How many members will say they did?			
5.	A. Did you have the opportunity to talk as often as you wished to?			
	B. How many will say the same?			

(D) Group Exploration

Let group express their feelings as freely as they could after the practice of previous sessions. Let individual members take leadership and use any of the approaches, role playing, dramatisation, drawing, etc.

(E) Group Development

Draw together underlying assumptions that had troubled

the members in previous sessions. Challenge, attack, and seek clarification.

(F) Group Resolution

Lead group to suggest some final ideas for the usefulness of all members. Allow the group to attempt to integrate some alternative ways of dealing with self and others and concerns.

(G) Group Evaluation

Have members give an assessment of their contribution to and learnings from the group sessions.

The Post Tests follow.

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APPENDIX B

Persons Serving as Models (M) and Observers (O) of the Method of Approach

School	Names	Role
1. Beechcroft School	Principal	M , O
	Vice-Principal	M , O
	Teachers (two)	M , O
	Mr. P. Shapiro, Psychologist	O
	Mrs. Caroline Whitehead, Social Worker	O
2. Holloway Secondary	Special Teachers (Reading)	M , O
	- Mr. I. Singh	M , O
	- Dr. Chaterpagy	O
	- Mr. Walker	O
3. Youth Training Centre (Three Trials)	Mr. Culligan, Director	M , O
	Mr. Legere, Principal	M , O
	Teachers (three)	M , O
	Correctional Workers (four)	M , O
	M. Ed. Students (ten)	M , O
	- Ed Kilfoil	
	- Mike Martin	
	- Laura Flagg	
	- Ivan Shaw (B.Ed.)	
	- E. Smith	
	- J. Berube	
	- D. MacCullam	
	- T. Evans	
	- J. Burns (B.Ed.)	
	- J. Smith (B.Ed.)	
	Chris Colrin, Probation Officer	M , O
4. Rothesay J.H.S.	Principal	M , O
	W. McCann, Counsellor	M , O
	M. Granik, Counsellor	M , O
	Teachers (three)	M , O
5. George St. J.H.S.	Principal, Mr. Dykeman	O
	D. McMillan, Vice-Principal	M , O
	J. Carrol, Vice-Principal	M , O
	Teachers (two)	O
	E. Smith (M.Ed.)	M , O
	M. Martin (M.Ed.)	M , O

APPENDIX C

RATIONAL EMOTIVE THERAPY

Albert Ellis

The rational-emotive psychotherapist often uses other techniques of therapy such as expressive emotive, supportive, free-association, and insight-interpretative theroy as preliminary means to gain rapport with the client. Then the therapist makes an attack on the disturbed person's illogic by (a) directly contradicting and denying the self-instilling; and by (b) encouraging, persuading, cajoling and insisting that the patient take part in some activity which will serve as a counter measure against the nonsense he believes.

The main goal is to influence the patient to adopt a rational philosophy of life. The rational-emotive therapist believes in rules of logic, straight thinking, and scientific method. He uncovers the most irrational thoughts in his patient and urges him towards reason.

Ellis explains his approach according to an A, B, C, D, E theory.

A - existence of a fact, event, or the behaviour or attitude of another person. It is the agent.

B - self-verbalization of the individual about A. It is his belief about A.

C - the reaction of the individual - the consequence which is thought to follow directly from A but which in fact is brought about by B.

D - dispute which individual can be taught to have with his B's.

E - cognitive effect brought about by D.

Following is an example of a situation (giving a seminar before a class) and a comparison of the rational and irrational reactions to the situation.

RATIONAL PERSON:

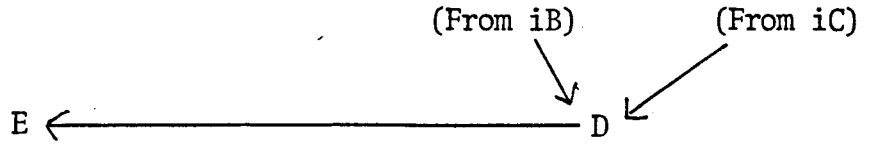
A ——————→ B ——————→ C

Activity, Action, Agent	Rational Belief	Rational Consequence
Ex. Having to give a seminar before a class.	(about A), Ex. "It would be unfortunate if I were to make a mess of the seminar."	(Appropriate consequence of rB), Ex. I would become concerned, thoughtful and plan how to succeed with the seminar. If I fail, I would feel disappointed, displeased, sorrowful, perhaps frustrated, but I would go on to try to do better next time.

IRRATIONAL PERSON:

A ——————→ B ——————→ C

Activity, Action, Agent	Rational Belief	Rational Consequence
Ex. Having to give a seminar before a class	(about A), Ex. "It would be a catastrophe if I were to make a mess of the seminar."	(Inappropriate), Ex. He would feel anxious, self-pitying, depressed, nervous. He would get upset - perhaps blood pressure would go up and he would develop psychosomatic reactions. Being upset he probably would make a mess of the seminar and then he would be defensive, fail to see his mistakes, blame external factors. He might consider himself hopeless and drop out of the course.
	↓	↓
	(To D)	(To D)



Cognitive Effect

Asks himself, "Why would it be a catastrophe if I fail in giving my seminar?" Answers himself: "It will not be a catastrophe. It would merely be inconvenient." "How would it destroy me?" Answers: "It would not; it would only frustrate me."

Dispute

The irrational individual can be taught to dispute his iB's. Ex. "Why would it be a catastrophe if I fail in my seminar? How would such a failure destroy me? Why couldn't I stand failing this assignment?" (Usually the irrational person can recognize his beliefs as being irrational and unverifiable.

Behavioural Effect

Less anxious, less self-pitying. Reduction of psychosomatic symptoms, less defensive. He would be less preoccupied with possibility of failure and would more constructively devote himself to succeeding.

There are four steps in Ellis' counselling procedure:

1. Showing the client that he is irrational, helping him to understand how and why he became that way, and demonstrating the relationship between his irrational ideas and his emotional disturbance.

2. Showing the client that he is maintaining his disturbance by continuously thinking irrational thoughts.

3. Getting the client to change his thinking - to rid himself of irrational ideas.

4. Helping the client to accept a more rational philosophy of living so that he avoids other irrational ideas and beliefs in the future.

NOTES ON R.E.T.

Originated in 1955 - Man at centre of universe with full responsibility for his own fate.

ABC approach (Cognitive, Emotive, Behaviouristic).

C - The upsetting emotional consequence recently experienced by client rejection.

A - The Activating Experience which the C wrongly believes directly causes C - his feelings of anxiousness, worthlessness, and depression.

B - Individual's Belief System, the intervening variable which really

A	B,	C
Activating Experience	Irrational Beliefs	Emotional Consequences
Individual rejected by a significant person in his life, father or mother.	Internalized self-defeating sentences - It will be terrible. I am no good. I am no good. I don't like being rejected. It is shameful. All is lost.	Feelings of depression, withdrawal anxiety reactions, aggressiveness, delinquent acts.

Changing Beliefs

1. Show how irrational beliefs create dysfunctional consequences. (Like Freud, Adler)

2. Teach the Individual how to DISPUTE in order to change or surrender these irrational beliefs. (Opposed to Freud, Adler)

3. Proceed to develop new and better functioning EFFECTS. Adopt new philosophies of living.

D
Dispute
Challenge the Irrational beliefs. Why can't you stand being rejected? Teach client to do that.

E
Effects
Effect a new outlook for living. Demonstrates possibility for changing thoughts, feelings, performances. Teaches client principles of human behaviour. Role playing and acting new ways.

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APPENDIX D

REALITY THERAPY - 1

By Dr. William Glasser

Based on the three R's - Reality, Responsibility, Right and Wrong.

Three Procedures

1. Involvement with the client. See how his behaviour is unrealistic.

2. Reject the behaviour which is unrealistic but still accept the client.

3. Teach the client better ways to fulfill his needs within the confines of reality.

Notes

"In Reality Therapy we are much more concerned with behaviour than with attitudes."

"The client rather than the therapist must decide whether or not his behaviour is irresponsible and whether he should change it."

"In Reality Therapy we rarely ask why. Our usual question is WHAT? What are you doing - not why are you doing it?"

"When the client admits his behaviour is irresponsible, the last phase of therapy-relearning begins."

"People do not act irresponsibly because they are ill; they are ill because they act irresponsibly."

"We gain self-respect through discipline and closeness to others through love."

REALITY THERAPY - 11

Principles

1. Involvement
   - Therapist involved with client
   - Warmth and understanding

2. Current Behaviour
   - Awareness of present behaviour
   - What is the client doing? Do not focus on feelings since it is the irresponsible behaviour that can be changed

3. Evaluating your Behaviour
   - Client looks at his behaviour critically
   - The therapist asks him to judge his behaviour for desirability, personally and socially

4. Planning Responsible Behaviour
   - Assist in developing realistic plans
   - Plan must be ambitious but not difficult to attain
   - Plans are not final; have alternatives

5. Commitment
   - Ask for a commitment by the client
   - A written commitment is stronger
   - Review the situation regularly

6. Accept No Excuses
   - See that the agreement is honoured
   - Do not ask why. Do not emphasize failure
   - Re-plan to keep commitments

- Assume that the commitment can always be fulfilled

7. No Punishment
   - Eliminate punishment
   - Punishment breaks the involvement
   - When the client succeeds, we praise him
   - Punishment reinforces loneliness

Extracted from: Glasser, W. Reality Therapy, N.Y.: Harper and Row, Publishers (1965 and Paper 1975) and Glasser W. The Identity Society, N.Y.: Harper and Row, Publishers, 1972, pp. 102-132.

LOS ANGELES CITY SCHOOL DISTRICTS

DIVISION OF ELEMENTARY EDUCATION

W.S.E.A.

January 11, 1967

HOW CAN WE HELP YOUNG CHILDREN FACE REALITY AND BECOME RESPONSIBLE HUMAN BEINGS?

William Glasser, M.D.

Public School Consultant

Consultant: Ventura School for Girls

Psychiatrist in private practice

in Los Angeles

Author: Reality Therapy

EXCERPTS FROM

a speech made by Dr. Glasser at

the E.S.E.A. Workshop for Primary Reading Specialists

52nd St. School, Los Angeles

August 17, 1966

I'd like to go through the psychiatric theory I know. What I practice I call "Reality Therapy". We start with the idea that everybody has basic needs. These are the two needs which seem to apply most: the need for love and the need to feel worthwhile; the idea we are worth something to ourselves and to the world seems to be built in. These are two-way needs: to love and to be loved implies someone to love and someone who loves us. If we don't have this, we suffer. For some children, the form of this suffering is not learning to read, and they won't learn to read until they get the idea that someone is able to care for them and they can learn. We need to feel we are worthwhile to at least one other person who thinks we are worthwhile. Even without this, you still have to maintain a modicum of care about yourself. The child who has given up on believing in himself and becomes apathetic is the most difficult. He doesn't think there is anything in the world for him.

Assuming these two needs are important -- if they are not fulfilled people suffer. Suffering is the only way they can see to meet needs. It is the best they can do at that moment. Children suffer by not learning or they get tired of suffering and cause others to suffer. One manifestation of suffering is the inability to read. They won't learn to read 'til they feel it is worthwhile in fulfilling their needs.

Children who can't fulfill their needs can't make contact with responsible people. I define responsible here -- people who themselves have been able to meet their basic needs. The teacher's first job is to make contact with

these children -- as a person who cares -- a person interested in them -- not as a teacher but as a person. The child needs to feel: "This is a good person who likes me -- who talks to me -- and I have a good time with him -- and -- he does teach reading." Everyone is doing the best he can do -- at the time. If he could do better, he would. You can't convince them they can do better 'til they relate to you and begin to meet their needs.

We haven't found ways to decrease human loneliness. Children who can't read are lonely. "Culturally disadvantaged" are lonely -- that is their disadvantage. We must relate as people. Until we reach these people as human beings -- person to person -- we won't get anywhere with them.

First, break the loneliness. Make contact -- help the children see sense in reality. They are responsible for where they are, but you can't convince them of this 'til you have made contact. What people are lonely for is involvement. Kids see T.V. and see happy hours, but they are not involved -- they are outside. The job is how to do this. The theory is simple. The practice is relatively simple -- deceptively so. In practice, these very simple things are very hard to do. People are looking for involvement, but they do not know how. Children will do a lot of testing. Do you really believe it when you say you care? The teacher says: "I can't teach these kids -- they are not motivated." Motivation is equivalent to involvement. The teacher doesn't understand what motivation is who says she can't teach children who are not motivated. Teaching is motivation. Once children are involved, they automatically become motivated.

First step in involvement: You must be personal and get emotionally involved. Not getting emotionally involved is like not giving a hungry man bread. You can be extremely personal with little children. Use the pronouns "I" and "me" -- any other pronouns are a waste of time. Say: "I'm interested in teaching you. It is important to me that you learn how to read." They are interested in hearing something about yourself, as a human being. They need to know you drive a car, have children, have a husband. Involvement is give and take conversation with someone motivated in the direction you wish to go. When you get emotionally involved and the child doesn't learn to read, you are hurt. You are really involved when you can be hurt -- if you are not emotionally involved you can't be hurt.

Second step: Work with children in the present. Reading teachers tend to work a little in the present and a little in the past. You have a "set" -- "They can't read". You must convey to them you are not interested in teaching them to read in the present. Lack of success is a certain kind of success. This success is active ability to not read. They want to see if you give credence to their previous success in past. Say: "Here we are not -- we are starting today -- in this room we learn how to read." Start as if the child can do this -- this destroys his defense of failure. You work with the present because everything the child did in the past relates to what he is doing right now. You poke back into the past only for successes, not for failures.

Third step: Deal with behaviour. We only have the

ability to help a person behave differently -- we can't change emotions and feelings. I have yet to see a person who can make another person happy. We can help a child feel better by discovering what he has done to make himself feel upset. You can't help a child over his upset, but you can help him understand that he can change his behaviour and get over his upset. Ask: "What are you doing?" not "How do you feel?"

Fourth step: Work with child and group to make a value judgement. Is it worthwhile to learn to read? You can't tell them it is important to learn to read. They must make their own value judgement. Use class discussion. Use dialogue. A child must make a value judgement that it is worthwhile to learn to read before he can learn to read. If any child honestly makes a value judgement that it is not worthwhile to learn to read, you won't teach until he changes the value judgement. Behaviour changes when a person gets involved in something worthwhile. Each child needs to decide: "Is it worthwhile to spend time in this class to learn to read?" The child must decide to change -- "What are you doing that is keeping you from reading?" (not paying attention), "Is this helping you?" "What can you do about it?" Once a child makes a value judgement (you can do this for a whole group), get the child to make a commitment. "What do you commit yourself to do? -- Will you take a book home and spend ten minutes each night looking at it? -- Will you pay attention for ten minutes in class?" This is his commitment -- his responsibility. He must do this himself.

Fifth step: Take no excuses. Discipline is hard because we not only deal with excuses, we ask for them. Discipline is poorly understood - it has nothing to do with hurting or harming children. It is teaching someone that the way he is going is not helping him and getting him to make better choices. It takes a lot of time for a child to fulfill his commitment. He will check you out. He will try to see if you will take excuses. If you accept excuses, it proves you don't really care and the old failure pattern recurs. If you accept excuses, you are saying: "You are worthless". If the assignment is not done, say: "When will you do it? Can you do it in school today? After school?", not: "Why didn't you do it?" If you don't ever accept excuses, you are saying: "You are a worthwhile person, and I'm waiting for you to complete your commitment."

Step six: Make a plan. Incorporate everything you have learned to help him learn. Don't re-do that which doesn't work. Use what will teach. The plan has to be involved with his commitment. Be sure the child can do what he plans. If he makes a commitment to pay attention for ten minutes, be sure he can.

Get the group involved -- use class dialogue. Get them to discuss reading problems together. They must speak before they can read. "Here is Johnny -- he has lots of problems -- what can you suggest?" They know how Johnny feels -- they have the same problems. Get them involved in something as a group they feel is worthwhile. In Ventura, we are now attempting to solve problems in 50 girl groups and are finding this more successful than anything done before.

APPENDIX E

TABLE K. Table of Probabilities Associated with Values as Small as Observed Values of x in the Binomial Test

Given in the body of this table are one-tailed probabilities under H_0 for the binomial test when $P = Q = \frac{1}{2}$. To save space, decimal points are omitted in the p's.

N \ x	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
5	031	188	500	812	969	†										
6	016	109	344	656	891	984	†									
7	008	062	227	500	773	938	992	†								
8	004	035	145	363	637	855	965	996	†							
9	002	020	090	254	500	746	910	980	998	†						
10	001	011	055	172	377	623	828	945	989	999	†					
11		006	033	113	274	500	726	887	967	994	†	†				
12		003	019	073	194	387	613	806	927	981	997	†	†			
13		002	011	046	133	291	500	709	867	954	989	998	†	†		
14		001	006	029	090	212	395	605	788	910	971	994	999	†	†	
15			004	018	059	151	304	500	696	849	941	982	996	†	†	†
16			002	011	038	105	227	402	598	773	895	962	989	998	†	†
17			001	006	025	072	166	315	500	685	834	928	975	994	999	†
18			001	004	015	048	119	240	407	593	760	881	952	985	996	999
19				002	010	032	084	180	324	500	676	820	916	968	990	998
20				001	006	021	058	132	252	412	588	748	868	942	979	994
21				001	004	013	039	095	192	332	500	668	808	905	961	987
22					002	008	026	067	143	262	416	584	738	857	933	974
23					001	005	017	047	105	202	339	500	661	798	895	953
24					001	003	011	032	076	154	271	419	581	729	846	924
25						002	007	022	054	115	212	345	500	655	788	885

SOURCE: Table IV, B, of Helen Walker and J. Lev, *Statistical Inference*, New York, Holt, Rinehart and Winston, Inc., 1953, p. 458, with the kind permission of the authors and publisher.

† 1.0 or approximately 1.0.

APPENDIX F

Junior Eysenck Personality Inventory

1.	Do you like plenty of excitement going on around you?	○	○
2.	Do you often need kind friends to cheer you up?	○	○
3.	Do you nearly always have a quick answer when people talk to you?	○	○
4.	Do you sometimes get cross?	○	○
5.	Are you moody?	○	○
6.	Would you rather be alone instead of meeting other children?	○	○
7.	Do ideas run through your head so that you cannot sleep?	○	○
8.	Do you always do as you are told at once?	○	○
9.	Do you like practical jokes?	○	○
10.	Do you ever feel "just miserable" for no good reason?	○	○
11.	Are you rather lively?	○	○
12.	Have you ever broken any rules at school?	○	○
13.	Do lots of things annoy you?	○	○
14.	Do you like doing things where you have to act quickly?	○	○
15.	Do you worry about awful things that might happen?	○	○
16.	Can you always keep every secret?	○	○
17.	Can you get a party going?	○	○
18.	Do you get thumping in your heart?	○	○
19.	When you make new friends do you usually make the first move?	○	○
20.	Have you ever told a lie?	○	○
21.	Are you easily hurt when people find fault with you or the work you do?	○	○
22.	Do you like telling jokes or funny stories to your friends?	○	○
23.	Do you often feel tired for no good reason?	○	○
24.	Do you always finish your homework before you play?	○	○
25.	Are you usually happy and cheerful?	○	○
26.	Are you touchy about some things?	○	○
27.	Do you like mixing with other children?	○	○
28.	Do you say your prayers every night?	○	○
29.	Do you have "dizzy turns"?	○	○

Name: _____

Age: _____

		YES	NO
30.	Do you like playing pranks on others?	○	○
31.	Do you often feel fed-up?	○	○
32.	Do you sometimes boast a little?	○	○
33.	Are you mostly quiet when you are with others?	○	○
34.	Do you sometimes get so restless that you cannot sit in a chair long?	○	○
35.	Do you often make up your mind to do things suddenly?	○	○
36.	Are you always quiet in class, even when the teacher is out of the room?	○	○
37.	Do you have many frightening dreams?	○	○
38.	Can you usually let yourself go and enjoy yourself at a gay party?	○	○
39.	Are your feelings rather easily hurt?	○	○
40.	Have you ever said anything bad or nasty about anyone?	○	○
41.	Would you call yourself happy-go-lucky?	○	○
42.	Do you worry for a long while if you feel you have made a fool of yourself?	○	○
43.	Do you often like a rough and tumble game?	○	○
44.	Do you always eat everything you are given at meals?	○	○
45.	Do you find it very hard to take no for an answer?	○	○
46.	Do you like going out a lot?	○	○
47.	Do you sometimes feel life is just not worth living?	○	○
48.	Have you ever been cheeky to your parents?	○	○
49.	Do other people think of you as being very lively?	○	○
50.	Does your mind often wander off when you are doing a job?	○	○
51.	Would you rather sit and watch than play at parties?	○	○
52.	Do you find it hard to get to sleep at nights because you are worrying about things?	○	○
53.	Do you usually feel fairly sure you can do the things you have to?	○	○
54.	Do you often feel lonely?	○	○
55.	Are you shy of speaking first when you meet new people?	○	○
56.	Do you often make up your mind when it is too late?	○	○
57.	When children shout at you, do you shout back?	○	○
58.	Do you sometimes feel specially cheerful and at other times sad without any good reason?	○	○
59.	Do you find it hard to really enjoy yourself at a lively party?	○	○
60.	Do you often get into trouble because you do things without thinking first?	○	○

PLEASE CHECK TO SEE THAT YOU HAVE ANSWERED *ALL* THE QUESTIONS

KEY (JEPI)

Question No.	E	N	L
	1	2	4
	3	5	8
	6	7	12
	9	10	16
	11	13	20
	14	15	24
	17	18	28
	19	21	32
	22	23	36
	25	26	40
	27	29	44
	30	31	48
	33	34	
	35	37	
	38	39	
	41	42	
	43	45	
	46	47	
	49	50	
	51	52	
	52	54	
	55	56	
	57	58	
	59	60	

APPENDIX G

SEMANTIC DIFFERENTIAL

The purpose of this task is to measure how you perceive yourself.

You are asked to describe yourself by checking where you feel you fit on each of the 24 scales.

Each scale has 7 points.

If you circle number 1 or 7 this means that you feel you are very much like the first or last word.

If you circle number 2 or 6 this means that you feel you are somewhat like the first or last word.

If you circle number 3 or 5 this means that you feel you are slightly like the first or last word.

If you circle number 4 this means that neither of the words describes you, or that both words describe you equally well, or that both words seem unimportant or irrelevant for you.

As an example the following 5 scales would mean that you have been described as: extremely fair; somewhat lenient; both calm and excitable; slightly dangerous; and neither foolish or wise.

1.	fair	(1)	2	3	4	5	6	7	unfair
2.	severe	1	2	3	4	5	(6)	7	lenient
3.	calm	1	2	3	(4)	5	6	7	excitable
4.	dangerous	1	2	(3)	4	5	6	7	safe
5.	foolish	1	2	3	(4)	5	6	7	wise

Work at a fairly high speed as you describe yourself. Do not puzzle over individual items. Make each item a separate and independent judgement. It is your first impression, your immediate feelings that we want. On the other hand, please do not be careless.

2.

The following is a description of the way I see myself.

1.	insensitive	1	2	3	4	5	6	7	sensitive
2.	strong	1	2	3	4	5	6	7	weak
3.	silent	1	2	3	4	5	6	7	talkative
4.	dishonest	1	2	3	4	5	6	7	honest
5.	excluded	1	2	3	4	5	6	7	included
6.	tough	1	2	3	4	5	6	7	fragile
7.	important	1	2	3	4	5	6	7	unimportant
8.	sad	1	2	3	4	5	6	7	happy
9.	follows	1	2	3	4	5	6	7	leads
10.	hot	1	2	3	4	5	6	7	cold
11.	involved	1	2	3	4	5	6	7	withdrawn
12.	shallow	1	2	3	4	5	6	7	deep
13.	aggressive	1	2	3	4	5	6	7	harmonious
14.	pleasant	1	2	3	4	5	6	7	unpleasant
15.	friendly	1	2	3	4	5	6	7	unfriendly
16.	passive	1	2	3	4	5	6	7	active
17.	relaxed	1	2	3	4	5	6	7	tense
18.	valuable	1	2	3	4	5	6	7	worthless
19.	dependent	1	2	3	4	5	6	7	independent
20.	slow	1	2	3	4	5	6	7	fast
21.	adaptable	1	2	3	4	5	6	7	rigid
22.	distant	1	2	3	4	5	6	7	close
23.	accepted	1	2	3	4	5	6	7	rejected
24.	bad	1	2	3	4	5	6	7	good

KEY

2.

The following is a description of the way I see myself.

1.	insensitive	1	2	3	4	5	6	(7) sensitive
2.	strong	1	2	3	4	5	6	7 weak
3.	silent	1	2	3	4	5	6	7 talkative
4.	dishonest	1	2	3	4	5	6	(7) honest
5.	excluded	1	2	3	4	5	6	(7) included
6.	tough	1	2	3	4	5	6	7 fragile
7.	important	1	2	3	4	5	6	7 unimportant
8.	sad	1	2	3	4	5	6	(7) happy
9.	follows	1	2	3	4	5	6	(7) leads
10.	hot	1	2	3	4	5	6	7 cold
11.	involved	1	2	3	4	5	6	7 withdrawn
12.	shallow	1	2	3	4	5	6	(7) deep
13.	aggressive	1	2	3	4	5	6	(7) harmonious
14.	pleasant	1	2	3	4	5	6	7 unpleasant
15.	friendly	1	2	3	4	5	6	7 unfriendly
16.	passive	1	2	3	4	5	6	(7) active
17.	relaxed	1	2	3	4	5	6	7 tense
18.	valuable	1	2	3	4	5	6	7 worthless
19.	dependent	1	2	3	4	5	6	7 independent
20.	slow	1	2	3	4	5	6	(7) fast
21.	adaptable	1	2	3	4	5	6	7 rigid
22.	distant	1	2	3	4	5	6	(7) close
23.	accepted	1	2	3	4	5	6	7 rejected
24.	bad	1	2	3	4	5	6	(7) good

The circled number is the true score for the stimulus word on the Right hand column. Those not circled indicate a score of one

APPENDIX H

BERGER SCALE - Form A

Last Name ..... First Name .....

Date of Birth..... Age ..... S-A .....

Examined by ..... Sex ..... A-O .....

School ..... Date.....

This is a study of some of your attitudes. Of course, there is no right answer for any statement. The best answer is what you feel is true of yourself.

You are to respond to each question by circling the number that is closest to the way you actually feel.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

Remember the best answer is the one which applies to you. Please try not to leave any questions unanswered.

1. I am afraid for people that I like to find out what I am really like, for fear that they would be disappointed in me.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About alfway true of myself	Mostl true of myself	Tru of myself

2. I can be comfortable with all varieties of people - from the highest to the lowest.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

3. In order to get along and be liked, I tend to be what people expect me to be rather than anything else.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

4. There is no sense in compromising. When people have values I don't like, I just don't care to have much to do with them.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

5. I realize that I am not living very effectively, but I just don't believe I've got it in me to use my energies in better ways.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

6. The person you marry may not be perfect, but I believe in trying to get her to change along desirable lines.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

7. I seem to have a real inner strength in handling things. I am on a pretty solid foundation and it makes me pretty sure of myself.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

8. I try to get people to do what I want them to do, in one way or another.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

9. I would like it if I could find someone who would tell me how to solve my personal problems.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

10. I often tell people what they should do when they are having trouble in making a decision.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

11. Because of other people, I have not been able to achieve as much as I should have.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

12. Sometimes people misunderstand me when I try to keep them from making mistakes that could have an important effect on their lives.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

13. When people say nice things about me, I find it difficult to believe they really mean it. I think maybe they are kidding me or just aren't being sincere.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

14. I feel neither above nor below the people I meet.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

15. If there is any criticism or anyone says anything about me, I just can't take it.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

16. There are very few times when I compliment people for their talents or jobs they've done.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

17. I look on most of the feelings and impulses I have toward people as being quite natural and acceptable.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

18. I don't approve of spending time and energy in doing things for other people. I believe in looking to my family and myself more and letting others shift for themselves.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

19. Something inside me just won't let me be satisfied with any job I've done - if it turns out well, I get a very smug feeling that this is beneath me, I should not be satisfied with this, this isn't a fair test.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

20. I don't approve of doing favors for people. If you're too agreeable they will take advantage of you.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

21. I don't question my worth as a person, even if I think others do.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

22. I can become so absorbed in the work I am doing that it doesn't bother me not to have any intimate friends.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

23. I am frequently bothered by feelings of inferiority.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

24. I enjoy myself most when I am alone, away from other people.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

25. I don't say much at social affairs because I'm afraid that people will criticize me or laugh if I say the wrong thing.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

26. I usually ignore the feelings of others when I am accomplishing some important end.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

27. Very often I don't try to be friendly with people because I think they won't like me.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

28. I see no objection in stepping on other people's toes a little if it'll help me get what I want in life.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

29. I feel different from other people. I'd like to have the feeling of security that comes from knowing that I'm not too different from others.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

30. I think I'm neurotic or something.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

31. I am quite shy and self-conscious in social situations.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

32. I feel self-conscious when I am with people who have a superior position to mine in business or at school.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

BERGER SCALE A

Key

	Self Acceptance	Choice of Highest Rating	Acceptance of Others	Choice of Highest Rating
Question No.	1	1	2	5
	5	1	3	1
	7	5	4	1
	9	1	6	5
	14	5	8	1
	15	1	10	1
	18	1	11	1
	19	1	12	5
	21	5	13	1
	22	1	16	1
	23	1	17	5
	24	1	20	1
	29	1	25	1
	30	1	26	1
	31	1	27	1
	32	1	28	1

NOTE: The five point scale sequentially rated from the true of myself category.

BERGER SCALE

APPENDIX I

FORM B

Last Name ..... First Name .....

Date of Birth ..... Age..... S-A.....

Examined by ..... Sex ..... A-O .....

School ..... Date .....

This is a study of some of your attitudes. Of course, there is no right answer for any statement. The best answer is what you feel is true of yourself.

You are to respond to each question by circling the number that is closest to the way you actually feel.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

Remember the best answer is the one which applies to you. Please try not to leave any questions unanswered.

---

1. I enjoy doing little favors for people even if I don't know them well.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

---

2. I feel that I'm a person of worth, on an equal plane with others.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

---

3. I can't avoid feeling guilty about the way I feel toward certain people in my life.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

---

4. I prefer to be alone rather than have close friendships with any of the people around me.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

---

5. I'm not afraid of meeting new people. I feel that I'm a worthwhile person and there is no reason why they should dislike me.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

---

6. I sort of only half-believe in myself.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

7. I seldom worry about other people. I'm really pretty self-centered.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

8. I'm very sensitive. People say things and I have a tendency to think they're criticizing me or insulting me in some way and later when I think of it, they may not have meant anything like that at all.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

9. I think I have certain abilities and other people say so too, but I wonder if I'm not giving them an importance way beyond what they deserve.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

10. I feel confident that I can do something about the problems that may arise in the future.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

11. I believe that people should get credit for their accomplishments, but I very seldom come across work that deserves praise.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

12. When someone asks for advice about some personal problem, I'm most likely to say "It's up to you to decide," rather than tell him what he should do.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

13. I guess I put on a show to impress people. I know I'm not the person I pretend to be.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

3

14. I feel that for the most part one has to fight his way through life. That means that people who stand in the way will be hurt.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

15. I can't help feeling superior (or inferior) to most of the people I know.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

16. I do not worry or condemn myself if other people pass judgment against me.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

17. I don't hesitate to urge people to live by the same high set of values which I have for myself.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

18. I can be friendly with people who do things which I consider wrong.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

19. I don't feel very normal, but I want to feel normal.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

20. When I'm in a group I usually don't say much for fear of saying the wrong thing.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

21. I have a tendency to sidestep my problems.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

22. If people are weak and inefficient I'm inclined to take advantage of them. I believe you must be strong to achieve your goals.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

23. I'm easily irritated by people who argue with me.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

24. When I'm dealing with younger persons, I expect them to do what I tell them.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

25. I don't see much point in doing things for others unless they can do you some good later on.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

26. Even when people do think well of me, I feel sort of guilty because I know I must be fooling them -- that if I were really to be myself, they would not think well of me.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

27. I feel that I'm on the same level as other people and that helps to establish good relations with them.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

28. If someone I know is having difficulty in working things out for himself, I like to tell him what to do.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

29. I feel that people are apt to react differently to me then they would normally react to other people.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

30. I live too much by other peoples' standards.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

5

31. When I have to address a group, I get self-conscious and have difficulty saying things well.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

32. If I didn't always have such hard luck, I'd accomplish much more than I have.

1	2	3	4	5
Not at all true of myself	Slightly true of myself	About halfway true of myself	Mostly true of myself	True of myself

BERGER SCALE B

Key

	Self Acceptance	Choice of Highest Rating	Acceptance of Others	Choice of Highest Rating
Question No.	2	5	1	5
	4	1	3	1
	6	1	5	5
	8	1	7	1
	9	1	12	1
	10	5	14	1
	11	1	15	1
	13	1	17	5
	16	5	18	5
	19	1	20	1
	21	5	22	5
	23	1	24	1
	26	1	25	1
	30	1	27	5
	31	1	28	5
	32	1	29	1

NOTE: The five point scale sequentially rated from the true of myself category.

APPENDIX J

TENNESSEE SELF CONCEPT SCALE — ANSWER SHEET

ITEM NO.	PAGES 5 AND 6	ITEM NO.	PAGES 3 AND 4	ITEM NO.	PAGES 1 AND 2
13	1 2 3 4 5	7	1 2 3 4 5	1	1 2 3 4 5
14	1 2 3 4 5	8	1 2 3 4 5	2	1 2 3 4 5
15	1 2 3 4 5	9	1 2 3 4 5	3	1 2 3 4 5
16	1 2 3 4 5	10	1 2 3 4 5	4	1 2 3 4 5
17	1 2 3 4 5	11	1 2 3 4 5	5	1 2 3 4 5
18	1 2 3 4 5	12	1 2 3 4 5	6	1 2 3 4 5
31	1 2 3 4 5	25	1 2 3 4 5	19	1 2 3 4 5
32	1 2 3 4 5	26	1 2 3 4 5	20	1 2 3 4 5
33	1 2 3 4 5	27	1 2 3 4 5	21	1 2 3 4 5
34	1 2 3 4 5	28	1 2 3 4 5	22	1 2 3 4 5
35	1 2 3 4 5	29	1 2 3 4 5	23	1 2 3 4 5
36	1 2 3 4 5	30	1 2 3 4 5	24	1 2 3 4 5
49	1 2 3 4 5	43	1 2 3 4 5	37	1 2 3 4 5
50	1 2 3 4 5	44	1 2 3 4 5	38	1 2 3 4 5
51	1 2 3 4 5	45	1 2 3 4 5	39	1 2 3 4 5
52	1 2 3 4 5	46	1 2 3 4 5	40	1 2 3 4 5
53	1 2 3 4 5	47	1 2 3 4 5	41	1 2 3 4 5
54	1 2 3 4 5	48	1 2 3 4 5	42	1 2 3 4 5
67	1 2 3 4 5	61	1 2 3 4 5	55	1 2 3 4 5
68	1 2 3 4 5	62	1 2 3 4 5	56	1 2 3 4 5
69	1 2 3 4 5	63	1 2 3 4 5	57	1 2 3 4 5
70	1 2 3 4 5	64	1 2 3 4 5	58	1 2 3 4 5
71	1 2 3 4 5	65	1 2 3 4 5	59	1 2 3 4 5
72	1 2 3 4 5	66	1 2 3 4 5	60	1 2 3 4 5
85	1 2 3 4 5	79	1 2 3 4 5	73	1 2 3 4 5
86	1 2 3 4 5	80	1 2 3 4 5	74	1 2 3 4 5
87	1 2 3 4 5	81	1 2 3 4 5	75	1 2 3 4 5
88	1 2 3 4 5	82	1 2 3 4 5	76	1 2 3 4 5
89	1 2 3 4 5	83	1 2 3 4 5	77	1 2 3 4 5
90	1 2 3 4 5	84	1 2 3 4 5	78	1 2 3 4 5
99	1 2 3 4 5	95	1 2 3 4 5	91	1 2 3 4 5
100	1 2 3 4 5	96	1 2 3 4 5	92	1 2 3 4 5
		97	1 2 3 4 5	93	1 2 3 4 5
		98	1 2 3 4 5	94	1 2 3 4 5

NAME

SCHOOL GRADE

SEX M F

AGE

DATE

TIME STARTED

TIME FINISHED

TOTAL TIME

Page 1

	Item No.
1. I have a healthy body	1
3. I am an attractive person	3
5. I consider myself a sloppy person	5
19. I am a decent sort of person	19
21. I am an honest person	21
23. I am a bad person	23
37. I am a cheerful person	37
39. I am a calm and easy going person	39
41. I am a nobody	41
55. I have a family that would always help me in any kind of trouble	55
57. I am a member of a happy family	57
59. My friends have no confidence in me	59
73. I am a friendly person	73
75. I am popular with men	75
77. I am not interested in what other people do	77
91. I do not always tell the truth	91
93. I get angry sometimes	93

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

	Item No.
2. I like to look nice and neat all the time	2
4. I am full of aches and pains	4
6. I am a sick person	6
20. I am a religious person	20
22. I am a moral failure	22
24. I am a morally weak person	24
38. I have a lot of self-control	38
40. I am a hateful person	40
42. I am losing my mind	42
56. I am an important person to my friends and family	56
58. I am not loved by my family	58
60. I feel that my family doesn't trust me	60
74. I am popular with women	74
76. I am mad at the whole world	76
78. I am hard to be friendly with	78
92. Once in a while I think of things too bad to talk about	92
94. Sometimes, when I am not feeling well, I am cross	94

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

	Item No.
7. I am neither too fat nor too thin.....	7
9. I like my looks just the way they are.....	9
11. I would like to change some parts of my body.....	11
25. I am satisfied with my moral behavior.....	25
27. I am satisfied with my relationship to God.....	27
29. I ought to go to church more.....	29
43. I am satisfied to be just what I am.....	43
45. I am just as nice as I should be.....	45
47. I despise myself.....	47
61. I am satisfied with my family relationships.....	61
63. I understand my family as well as I should.....	63
65. I should trust my family more.....	65
79. I am as sociable as I want to be.....	79
81. I try to please others, but I don't overdo it.....	81
83. I am no good at all from a social standpoint.....	83
95. I do not like everyone I know.....	95
97. Once in a while, I laugh at a dirty joke.....	97

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

		Item No.
8.	I am neither too tall nor too short.....	8
10.	I don't feel as well as I should.....	10
12.	I should have more sex appeal.....	12
26.	I am as religious as I want to be.....	26
28.	I wish I could be more trustworthy.....	28
30.	I shouldn't tell so many lies.....	30
44.	I am as smart as I want to be.....	44
46.	I am not the person I would like to be.....	46
48.	I wish I didn't give up as easily as I do.....	48
62.	I treat my parents as well as I should (Use past tense if parents are not living).	62
64.	I am too sensitive to things my family say.....	64
66.	I should love my family more.....	66
80.	I am satisfied with the way I treat other people.....	80
82.	I should be more polite to others.....	82
84.	I ought to get along better with other people.....	84
96.	I gossip a little at times.....	96
98.	At times I feel like swearing.....	98

Responses -	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

		Item No.
13.	I take good care of myself physically.....	13
15.	I try to be careful about my appearance.....	15
17.	I often act like I am "all thumbs".....	17
31.	I am true to my religion in my everyday life.....	31
33.	I try to change when I know I'm doing things that are wrong.....	33
35.	I sometimes do very bad things.....	35
49.	I can always take care of myself in any situation.....	49
51.	I take the blame for things without getting mad.....	51
53.	I do things without thinking about them first.....	53
67.	I try to play fair with my friends and family.....	67
69.	I take a real interest in my family.....	69
71.	I give in to my parents. (Use past tense if parents are not living).....	71
85.	I try to understand the other fellow's point of view.....	85
87.	I get along well with other people.....	87
89.	I do not forgive others easily.....	89
99.	I would rather win than lose in a game.....	99

Responses -	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

		Item No.
14.	I feel good most of the time	14
16.	I do poorly in sports and games	16
18.	I am a poor sleeper	18
32.	I do what is right most of the time	32
34.	I sometimes use unfair means to get ahead	34
36.	I have trouble doing the things that are right	36
50.	I solve my problems quite easily	50
52.	I change my mind a lot	52
54.	I try to run away from my problems	54
68.	I do my share of work at home	68
70.	I quarrel with my family	70
72.	I do not act like my family thinks I should	72
86.	I see good points in all the people I meet	86
88.	I do not feel at ease with other people	88
90.	I find it hard to talk with strangers	90
100.	Once in a while I put off until tomorrow what I ought to do today	100

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

CORE SHEET

:al and Research Form
ssee Self Concept Scale

NAME	SCHOOL GRADE	SEX M F	AGE	DATE	TIME STARTED	TIME FINISHED	TOTAL TIME

HOW THE INDIVIDUAL PERCEIVES HIMSELF

COLUMN A PHYSICAL SELF						COLUMN B MORAL-ETHICAL SELF						COLUMN C PERSONAL SELF						COLUMN D FAMILY SELF						COLUMN E SOCIAL SELF						SELF CRITICISM			
P-1	P-2	P-3	N-4	N-5	N-6	P-19	P-20	P-21	N-22	N-23	N-24	P-37	P-38	P-39	N-40	N-41	N-42	P-55	P-56	P-57	N-58	N-59	N-60	P-73	P-74	P-75	N-76	N-77	N-78	91	92	93	94
5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	5
4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	4
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	2
1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	1
P ____N ____						P ____N ____						P ____N ____						P ____N ____						P ____N ____							
P + N____P − N____						P + N____P − N____						P + N____P − N____						P + N____P − N____						P + N____P − N____							
P-7	P-8	P-9	N-10	N-11	N-12	P-25	P-26	P-27	N-28	N-29	N-30	P-43	P-44	P-45	N-46	N-47	N-48	P-61	P-62	P-63	N-64	N-65	N-66	P-79	P-80	P-81	N-82	N-83	N-84	95	96	97	98
5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	5
4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	4
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	2
1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	1
P ____N ____						P ____N ____						P ____N ____						P ____N ____						P ____N ____							
P + N____P − N____						P + N____P − N____						P + N____P − N____						P + N____P − N____						P + N____P − N____							
P-13	P-14	P-15	N-16	N-17	N-18	P-31	P-32	P-33	N-34	N-35	N-36	P-49	P-50	P-51	N-52	N-53	N-54	P-67	P-68	P-69	N-70	N-71	N-72	P-85	P-86	P-87	N-88	N-89	N-90	99	100		
5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5		
4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4		
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	SC =	
2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2		
1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1		
P ____N ____						P ____N ____						P ____N ____						P ____N ____						P ____N ____							
P + N____P − N____						P + N____P − N____						P + N____P − N____						P + N____P − N____						P + N____P − N____							
TOTAL POSITIVE (ΣP + N)																														Total Positive or P + N →			
Σ (Algebraic) P − N				5 -8 (4.0)						4 -10 (4.3)						0 -12 (4.3)						7 -6 (4.4)						5 -6 (3.8)				→ Total Net Conflict (P − N)			
Σ Non-(Algebraic) P − N				9 0 (2.8)						9 1 (2.8)						11 2 (3.0)						10 1 (3.1)						9 1 (3.0)				→ Total Conflict			
V. (Range of P + N Cell Scores)																																		→ Col. Tot. V.			

ROW TOTALS			
POSITIVE P + N	CONFLICT NET Algebraic Σ of P − N	CONFLICT TOTAL Non-Algebraic Σ of P − N	VARIABILITY Range of P + N Cell Scores
	-1 -15 (4.7)	13 2 (3.6)	
	8 -16 (7.3)	17 3 (6.0)	
	10 -9 (5.7)	14 2 (4.3)	
			Row Tot. V.
			Tot. V.

Tennessee Self Concept Scale

PROFILE SHEET

Clinical and Research Form
PUBLISHED BY:
COUNSELOR RECORDINGS AND TESTS
BOX 6184, ACKLEN STA
NASHVILLE, TENN 37212

NAME | SCHOOL GRADE | SEX M F | AGE | DATE | TOTAL TIME

T SCORE	SELF CRITICISM	T/F	CONFLICT NET	CONFLICT TOTAL	TOTAL	POSITIVE SCORES ROW 1	ROW 2	ROW 3	COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E	PERCENTILE SCORES	VARIABILITY TOTAL	VARIABILITY COL. TOT.	VARIABILITY ROW TOT.	DISTRIBUTION D	5	4	3	2	1	EMPIRICAL SCALES DP	GM	PSY	PD	N	PI	NDS	T SCORE
90	50	2.25	60	70	440	150	150	150	90	90	90	90	90	99.99				200	65	60	75	55	60	95	50	80	30	30	25	80	90
80		2.00		60	430		145	145			85			99.9	110	70	45	195	60	55	65	50	55	90	60	75	35	40		75	80
		1.90	50	55			140								105	65		190	55	50	60	45	50			70	40			60	
		1.80	40		420										100	60	40	185	50		55			85	65			45		50	
70		1.70	30	50	410	145	135	140			80	85	85	99	95	55	35	180	45	45	50	40	45		70	65	45	50	20	45	70
		1.60													90			175			45			80	75	60		55		40	
		1.50	20		400		130	135	85	85					85	50		170	40	40		35	40				50			35	
60	45	1.40		45	390		125							95	80			165			40			75	80		55			30	60
		1.30	15			140		130			75		80		75	45	30	160	35									60		25	
			10	40	380		120		80	80		80		90	70			155		35	35	30		70	85	55	60	65	15	20	
		1.20						125							65	40	25	150	30				35							15	
			5			135	115		75	75	70		75	80				145		30	25	25		65	90	50	70	80			
50	40	1.10	0	35	370			120				75			60	35	20	140	25				30						10	60
					360	130	110		75				70	70				135		25	20	20		60	95	45	75	75			
			-5				105	115			65	75			55	30	20	130	20				25						5	
	35	1.00		30	350					70				60				125		25	20	20		55	100	45	80	85	10		50
			-10			125		110	70			70			50			120					20								
		.90			340		100						65	50				115	15		15			50	105	40	85	90			
			-15	25		120		105	65	65	60	65			45			110					15								
40	30	.80			330		95							40		25		105		20		15		45	105	40	85	95			40
			-20	20	320	115	90	105	60	60	55	60	60		40		15	100	10		10		15								
					310		85							20		20		95		15		10		40	110	35	90		5		
			-25		300	110		100	60	60		60			35			90	5		5		10								
	25	.70			290		80						55	30		15		85		10		5		35		95	100		0	
					280		75			55	50	55			30			80													
30			-30	15	270	105	70	95	55				50			10		75	5		5		5	30			100	105			30
	20	.60			260		65				45	50			25		10	70		10											
			-35		250	100		90	50	50				1		10		65				0		25	115	30	105	110			
		.50			240		60				40	45	50		20			60		5			5								
	15	.40			230	95	55	85	50						15			55						20			105				
																		50													

APPENDIX K

THE WAY I FEEL ABOUT MYSELF
(Piers-Harris)

NAME _____

AGE _____ GIRL OR BOY _____

GRADE _____ SCHOOL _____

DATE _____

Here are statements to tell how you feel about yourself. Answer each question honestly. Put only one choice for each question.

1. My classmates make fun of me	yes	no
2. I am a happy person	yes	no
3. It is hard for me to make friends	yes	no
4. I am often sad	yes	no
5. I am smart	yes	no
6. I am shy	yes	no
7. I get nervous when the teacher calls on me	yes	no
8. My looks bother me	yes	no
9. When I grow up I will be an important person	yes	no
10. I get worried when we have tests in school	yes	no
11. I am unpopular	yes	no
12. I am well behaved in school	yes	no
13. It is usually my fault when something goes wrong	yes	no
14. I cause trouble to my family	yes	no
15. I am strong	yes	no
16. I have good ideas	yes	no
17. I am an important member of my family	yes	no
18. I usually want my own way	yes	no
19. I am good at making things with my hands	yes	no
20. I give up easily	yes	no
21. I am good in my school work	yes	no
22. I do many bad things	yes	no
23. I can draw well	yes	no
24. I am good in music	yes	no

25. I behave badly at home	yes	no
26. I am slow in finishing my school work	yes	no
27. I am an important member of my class	yes	no
28. I am nervous	yes	no
29. I have pretty eyes	yes	no
30. I can give a good report in front of the class	yes	no
31. In school I am a dreamer	yes	no
32. I pick on my brother(s) and sister(s)	yes	no
33. My friends like my ideas	yes	no
34. I often get into trouble	yes	no
35. I am obedient at home	yes	no
36. I am lucky	yes	no
37. I worry a lot	yes	no
38. My parents expect too much of me	yes	no
39. I like being the way I am	yes	no
40. I feel left out of things	yes	no
41. I have nice hair	yes	no
42. I often volunteer in school	yes	no
43. I wish I were different	yes	no
44. I sleep well at night	yes	no
45. I hate school	yes	no
46. I am among the last to be chosen for games	yes	no
47. I am sick a lot	yes	no
48. I am often mean to other people	yes	no
49. My classmates in school think I have good ideas	yes	no
50. I am unhappy	yes	no
51. I have many friends	yes	no
52. I am cheerful	yes	no
53. I am dumb about most things	yes	no
54. I am good looking	yes	no
55. I have lots of pep	yes	no
56. I get into a lot of fights	yes	no
57. I am popular with boys	yes	no
58. People pick on me	yes	no
59. My family is disappointed in me	yes	no
60. I have a pleasant face	yes	no
61. When I try to make something, everything seems to go wrong	yes	no

62. I am picked on at home	yes	no
63. I am a leader in games and sports	yes	no
64. I feel clumsy	yes	no
65. In games and sports, I watch instead of play	yes	no
66. I forget what I learn	yes	no
67. I am easy to get along with	yes	no
68. I lose my temper easily	yes	no
69. I am popular with girls	yes	no
70. I am a good reader	yes	no
71. I would rather work alone than with a group	yes	no
72. I like my brother (sister)	yes	no
73. I have a good figure	yes	no
74. I am often afraid	yes	no
75. I am always dropping or breaking things	yes	no
76. I can be trusted	yes	no
77. I am different from other people	yes	no
78. I think bad thoughts	yes	no
79. I cry easily	yes	no
80. I am a good person	yes	no

PIERS - HARRIS

CHILDREN'S SELF-CONCEPT SCALE

KEY

1. No	21. Yes	41. Yes	61. No
2. Yes	22. No	42. Yes	62. No
3. No	23. Yes	43. No	63. Yes
4. No	24. Yes	44. Yes	64. No
5. Yes	25. No	45. No	65. No
6. No	26. No	46. No	66. No
7. No	27. Yes	47. No	67. Yes
8. No	28. No	48. No	68. No
9. Yes	29. Yes	49. Yes	69. Yes
10. No	30. Yes	50. No	70. Yes
11. No	31. No	51. Yes	71. No
12. Yes	32. No	52. Yes	72. Yes
13. No	33. Yes	53. No	73. Yes
14. No	34. No	54. Yes	74. No
15. Yes	35. Yes	55. Yes	75. No
16. Yes	36. Yes	56. No	76. Yes
17. Yes	37. No	57. Yes	77. No
18. No	38. No	58. No	78. No
19. Yes	39. Yes	59. No	79. No
20. No	40. No	60. Yes	80. Yes

PIERS-HARRIS SELF CONCEPT SCALE

School Age Norms (Grades 4 through 12)
(N=1138)

Piers-Harris Raw Score	Percentile	Stanine	Piers-Harris Raw Score	Percentile	Stanine
80			44	27	4
79			43	24	4
78			42	23	3
77			41	21	3
76	99		40	20	3
75	98		39	18	3
74	97	9	38	17	3
73	96	8	37	15	3
72	95	8	36	14	3
71	94	8	35	13	3
70	93	8	34	12	3
69	91	8	33	11	3
68	89	7	32	10	3
67	87	7	31	9	3
66	85	7	30	8	2
65	82	7	29	7	2
64	79	7	28	6	2
63	77	6	27	6	2
62	74	6	26	5	2
61	71	6	25	5	2
60	69	6	24	4	1
59	66	6	23	3	
58	63	6	22	3	
57	60	5	21	2	
56	57	5	20	2	
55	55	5	19	2	
54	52	5	18	1	
53	49	5	17		
52	46	5	16		
51	44	5	15		
50	41	5	14		
49	38	4	13		
48	36	4	12		
47	33	4	11		
46	31	4	10		
45	29	4			

Average

Aver

APPENDIX L

Preliminary Scale
Group Analysis Scale of Self and Others (GASSO)

OBSERVER _____ NAME _____

		Low			Medium			High		
Se										
1.	Expression of honest feelings of self	1	2	3	4	5	6	7	8	9
2.	An attempt to aim at positive values	1	2	3	4	5	6	7	8	9
3.	Responsibility for one's action	1	2	3	4	5	6	7	8	9
4.	Accepting self with confidence	1	2	3	4	5	6	7	8	9
Ot										
5.	Respect for other people	1	2	3	4	5	6	7	8	9
6.	Cooperation with others	1	2	3	4	5	6	7	8	9
7.	Genuine communication with others	1	2	3	4	5	6	7	8	9
8.	Seeking help from and giving help to others	1	2	3	4	5	6	7	8	9
Group Growth										
9.	Satisfaction with group meetings	1	2	3	4	5	6	7	8	9
10.	Wanting to try to make own decisions	1	2	3	4	5	6	7	8	9
11.	Toleration of different views	1	2	3	4	5	6	7	8	9
12.	Wanting to become a better person	1	2	3	4	5	6	7	8	9

Score: Maximum 108

Minimum 12

Mean 60

PILOT ONE SCORES - 1973-74

GROUP X	E	P	I	PRE-TESTS Berger A			POST-TESTS Berger B		
	E	N	L	S-D	S/A	A/0	S-D	S/A	A/0
1.	6	20	1		39	43		43	48
2.	14	15	2		48	43		51	47
3.	22	8	1		46	44		60	63
4.	12	13	1		66	61		68	67
5.	14	17	6		46	48		51	54
6.	9	4	7		48	42		50	47
7.	17	13	3		54	57		54	57
8.	12	18	3		54	55		54	55
9.	16	14	1		59	43		61	54
10.	20	21	6		44	48		51	48

PILOT ONE SCORES - 1973-74

GROUP Y	E.	P.	I.	PRE-TESTS Berger A			POST -TESTS Berger B		
	E	N	L	S-D	S/A	A/0	S-D	S/A	A/0
1.	18	9	1		56	53		63	59
2.	20	15	1		51	49		56	50
3.	11	12	1		56	45		60	48
4.	18	14	1		56	51		56	51
5.	15	17	4		53	44		53	44
6.	12	7	8		39	44		39	44
7.	15	15	2		55	60		62	66
8.	18	23	5		55	61		60	68
9.	18	16	4		53	49		62	57
10.	16	3	0		70	61		74	63

PILOT ONE SCORES - 1973-74

GROUP C	E.	P.	I.	PRE-TESTS Berger A			POST-TESTS Berger B		
	E	N	L	S-D	S/A	A/0	S-D	S/A	A/0
1.	14	16	3		37	53		45	51
2.	14	13	5		52	41		33	51
3.	15	15	1		37	41		37	41
4.	12	20	4		41	47		39	55
5.	18	19	1		41	47		41	47
6.	20	10	0		65	72		65	72

PILOT TWO SCORES - 1973-74

GROUP X	E.	P.	I.	PRE-TESTS Berger A			POST-TESTS Berger B		
	E	N	L	S-D	S/A	A/0	S-D	S/A	A/0
1.	16	18	1	128	41	54	130	47	54
2.	16	19	4	150	44	57	152	54	63
3.	18	17	2	114	41	44	138	50	55
4.	17	20	1	106	43	44	129	45	55
5.	18	16	0	129	49	48	129	49	48
6.	10	12	0	128	35	44	136	35	44
7.	21	17	6	111	46	52	127	46	52
8.	12	14	4	119	43	51	133	50	53
9.	17	15	1	104	55	45	135	57	52

PILOT TWO SCORES - 1973-74

GROUP Y	E.	P.	I.	PRE-TESTS Berger A			POST-TESTS Berger B		
	E	N	L	S-D	S/A	A/0	S-D	S/A	A/0
1.	19	21	2	117	44	47	120	50	50
2.	18	17	1	116	50	47	139	57	51
3.	19	20	2	124	46	46	129	52	49
4.	17	21	3	111	37	43	111	51	48
5.	15	17	1	124	46	46	130	53	53
6.	18	20	1	142	42	35	142	42	35
7.	14	17	1	113	40	43	129	42	47
8.	10	16	6	109	38	45	115	39	46
9.	19	5	2	132	55	50	132	61	58

PILOT TWO SCORES - 1973-74

GROUP C	E.	P.	I.	PRE-TESTS Berger A			POST-TESTS Berger B		
	E	N	L	S-D	S/A	A/O	S-D	S/A	A/O
1.	17	21	1	102	43	40	102	30	40
2.	19	15	1	102	51	46	102	44	50
3.	24	15	3	114	43	59	114	43	59
4.	16	14	1	106	47	49	112	54	46
5.	15	8	8	139	56	59	139	56	59
6.	20	13	3	102	48	48	126	48	48
7.	19	9	2	149	54	55	145	54	55
8.	18	10	2	135	30	40	135	30	40
9.	18	23	0	125	46	49	125	46	49

TRIAL ONE SCORES - 1974-75

Group X	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			Total Positive	Self-Crit.	Physical Self	Moral Self	Personal Self	Family Self	Social Self
	E	N	L	S-D	S/A	A/O	S-D	S/A	A/O							
1.	24	18	3	116	47	44	120	55	49	284	42	65	48	60	51	60
2.	21	17	2	109	44	51	114	50	57	314	35	53	61	66	66	68
3.	16	16	1	106	41	52	112	43	56	290	35	60	52	60	60	58
4.	14	15	2	112	33	46	116	54	48	318	38	75	62	56	64	61
5.	14	11	4	133	54	51	138	63	56	334	37	71	64	66	64	69
6.	20	14	3	127	46	41	132	46	49	325	50	70	68	54	70	63
7.	19	21	1	105	24	32	117	42	35	246	45	56	52	44	48	46
8.	20	16	3	97	37	35	107	51	49	358	45	79	66	69	74	70
9.	20	4	3	90	52	43	104	53	58	322	46	72	54	60	72	64
10.	15	11	4	90	41	48	107	43	50	314	35	53	61	66	66	68

TRIAL ONE SCORES - 1974-75

Group Y	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			Total Positive	Self-Crit.	Physical Self	Moral Self	Personal Self	Family Self	Social Self
	E	N	L	S-D	S/A	A/O	S-D	S/A	A/O							
1.	11	19	0	63	52	57	89	63	64	289	40	57	61	69	46	56
2.	11	8	2	106	47	40	116	59	53	329	37	79	68	65	54	63
3.	20	2	3	116	55	51	123	60	59	399	46	79	70	73	83	74
4.	22	20	2	95	40	49	112	48	52	305	44	71	54	61	62	57
5.	14	12	0	120	43	45	125	45	51	293	36	61	59	61	62	50
6.	13	16	2	106	40	45	110	42	52	305	39	59	61	66	59	60
7.	20	17	3	102	50	50	111	53	52	304	41	53	57	57	73	64
8.	15	14	1	98	56	52	103	57	58	282	37	68	56	52	54	52
9.	21	12	1	109	52	48	120	59	51	318	44	73	59	62	59	67
10.	19	9	5	128	53	44	150	63	45	294	37	73	57	69	46	49

TRIAL ONE SCORES - 1974-75

GROUP C	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			Total Positive	Self-Crit.	Physical Self	Moral Self	Personal Self	Family Self	Social Self
	E	N	L	S-D	S/A	A/0	S-D	S/A	A/0							
1.	19	18	4	117	59	62	116	50	58	284	29	64	56	60	62	42
2.	20	17	1	112	48	48	120	54	52	266	31	53	52	54	55	52
3.	18	21	0	100	54	51	101	50	53	290	33	60	52	58	55	59
4.	22	6	5	110	42	49	114	49	47	259	35	56	51	53	50	49
5.	14	8	1	105	48	59	118	53	51	279	31	62	58	52	52	55
6.	19	15	2	107	51	55	103	42	56	299	35	62	65	52	69	51
7.	19	10	2	122	50	36	104	58	42	291	41	64	59	52	54	62
8.	21	18	4	143	64	69	148	74	75	352	25	79	58	74	63	78
9.	15	15	2	100	56	55	98	46	56	276	26	65	51	54	60	46
10.	17	17	2	134	47	60	108	50	51	255	46	72	50	39	60	34

TRIAL TWO SCORES - 1974-75

GROUP X	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			Total Positive	Self-Crit.	TSCS Physical Self	Moral Self	Personal Self	Family Self	Social Self	S-D	LATER
	E	N	L	S-D	S/A	A/0	S-D	S/A	A/0									
1.	19	9	2	98	61	47	99	64	57	325	40	67	62	67	66	63	112	
2.	14	19	2	86	40	46	96	50	50	270	37	62	54	53	46	54	96	
3.	20	13	3	116	49	49	121	62	58	314	35	74	59	58	61	62	119	
4.	22	12	0	106	52	49	120	60	52	345	38	69	60	69	73	74	120	
5.	19	9	2	108	59	57	122	65	59	315	33	59	54	63	71	68	120	
6.	17	7	2	88	48	52	101	50	57	278	37	57	59	61	49	52	110	
7.	22	12	8	123	59	60	129	63	60	307	30	60	58	63	63	63	129	
8.	14	8	2	92	49	54	98	52	54	295	32	65	56	60	54	60	98	
9.	19	16	3	91	41	42	130	53	47	311	35	65	50	65	69	62	102	
10.	12	15	5	85	40	45	98	52	48	244	30	54	40	49	47	47	91	

TRIAL TWO SCORES - 1974-75

GROUP Y	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			TSCS								LATER
	E	N	L	S-D	S/A	A/O	S-D	S/A	A/O	Total Positive	Self - Crit.	Physical Self	Moral Self	Personal Self	Family Self	Social Self	S-D	
1.	18	16	5	109	47	51	127	52	49	278	30	58	60	54	56	50	100	
2.	23	13	3	99	51	55	111	59	61	257	37	55	47	62	37	56	113	
3.	16	17	1	113	56	54	119	55	50	318	34	70	61	61	63	63	113	
4.	19	2	5	104	55	54	110	55	54	317	38	61	52	70	65	69	113	
5.	21	11	4	132	59	57	138	72	62	329	39	72	56	71	64	66	133	
6.	20	12	2	110	60	57	122	56	58	309	35	63	57	61	63	65	123	
7.	18	10	3	115	52	54	123	52	54	329	42	75	47	69	80	58	121	
8.	20	14	0	116	54	47	129	54	55	304	38	67	58	58	59	62	137	
9.	22	10	2	122	71	57	129	68	64	358	46	86	50	73	76	73	129	
10.	20	10	2	103	50	52	112	61	55	286	33	59	56	58	55	58	96	

TRIAL TWO SCORES - 1974-75

GROUP C	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			Total Positive	Self - Crit.	Physical Self	Moral Self	Personal Self	Family Self	Social Self	S-D	LATER
	E	N	L	S-D	S/A	A/O	S-D	S/A	A/O									
1.	17	5	2	134	58	57	123	58	57	391	34	78	85	82	72	74	129	
2.	18	7	2	107	47	46	102	52	51	283	37	62	52	54	58	57	98	
3.	20	2	1	107	53	48	105	53	50	289	34	57	57	57	58	60	105	
4.	18	3	4	113	39	48	113	54	55	314	33	67	61	61	62	63	113	
5.	21	12	2	118	53	53	116	48	57	323	39	72	56	74	53	68	116	
6.	16	13	2	100	51	50	100	58	48	288	32	57	55	55	60	61	100	
7.	11	8	1	109	57	54	105	57	55	331	29	71	50	75	73	62	105	
8.	20	9	2	116	55	49	117	52	51	314	30	62	62	64	63	63	128	
9.	16	19	1	123	42	42	109	46	48	279	35	55	53	54	59	58	108	
10.	14	13	0	103	42	46	103	53	52	291	31	52	57	62	61	59	103	

TRIAL THREE SCORES - 1975-76

GROUP X	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			Total Positive	Self-Crit.	Physical Self	Moral Self	Personal Self	Family Self	Social Self	S-D	LATER
	E	N	L	S-D	S/A	A/0	S-D	S/A	A/0									
1.	13	20	2	115	40	41	132	45	49	337	46	76	54	63	72	72	127	
2.	22	18	1	109	45	50	128	47	51	295	29	60	55	59	63	58	117	
3.	20	18	0	96	52	48	112	54	52	293	30	61	50	60	56	66	99	
4.	19	16	2	105	50	48	107	51	51	280	31	62	54	55	49	60	106	
5.	13	11	4	96	46	53	105	55	55	280	31	61	53	58	57	51	105	
6.	12	17	1	84	43	43	109	52	50	296	31	60	65	57	61	53	95	
7.	22	14	3	79	46	52	107	49	58	283	34	71	47	51	58	56	116	
8.	15	11	5	135	44	53	141	55	56	295	29	60	55	59	63	58	144	
9.	7	7	3	99	48	58	111	62	60	311	31	59	56	72	60	64	102	
10.	18	17	1	94	53	50	107	59	55	275	39	56	55	50	55	59	96	

TRIAL THREE SCORES - 1975-76

GROUP Y	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			Total Positive	Self. Crit.	Physical Self	Moral Self	Personal Self	Family Self	Social Self	S-D	LATER
	E	N	L	S-D	S/A	A/O	S-D	S/A	A/O									
1.	5	19	4	97	48	59	109	55	65	324	40	63	56	69	68	68	116	
2.	20	12	5	116	63	56	121	73	66	309	26	70	57	62	63	57	121	
3.	20	20	0	98	48	44	99	52	55	275	30	59	51	59	52	54	99	
4.	14	13	3	128	58	52	136	60	66	309	26	70	57	62	63	57	147	
5.	13	10	3	97	54	48	114	60	62	274	26	56	51	53	60	54	101	
6.	18	20	2	96	41	42	103	56	46	279	33	60	54	51	61	53	102	
7.	23	20	2	105	50	49	120	52	50	247	34	47	48	48	56	48	110	
8.	18	15	1	140	45	51	142	48	64	279	31	55	48	64	60	52	153	
9.	12	19	1	106	56	44	109	57	45	287	41	62	56	56	49	64	109	
10.	20	20	1	98	50	54	110	52	60	303	35	66	35	64	69	69	125	

TRIAL THREE SCORES - 1975-76

GROUP C	J.E.P.I.			PRE-TESTS Berger A			POST-TESTS Berger B			TSCS							S-D	LATER
	E	N	L	S-D	S/A	A/O	S-D	S/A	A/O									
1.	10	21	1	90	45	40	99	41	46								92	
2.	14	20	2	93	54	40	93	54	40								93	
3.	18	11	5	127	55	51	102	57	51								121	
4.	17	19	2	113	56	53	117	54	47								105	
5.	15	17	1	104	61	57	121	53	53								114	
6.	12	16	2	102	60	57	94	48	51								94	
7.	9	14	2	113	40	53	107	46	54								88	
8.	8	16	8	111	40	51	114	49	47								112	
9.	19	9	5	128	63	44	133	49	48								136	
10.	18	13	2	91	49	48	101	50	52								100	

TRIAL FOUR SCORES - 1975-76

GROUP X	E. P. I.			PRE-TESTS						
				Berger A			Piers-Harris Self-Concept			
	E	M	L	S-D	S/A	A/O	I	II	III	Total
1.	19	17	3	146	56	42	26	23	18	67
2.	19	7	2	103	48	52	22	10	12	44
3.	19	18	0	90	57	61	17	16	17	50
4.	17	20	1	111	59	47	16	15	8	39
5.	9	16	7	93	46	40	15	17	11	43
6.	18	17	5	81	38	39	15	16	14	45
7.	9	10	3	99	61	54	23	8	16	47
8.	20	15	0	103	55	43	10	9	9	28
9.	18	18	3	101	36	33	11	8	4	23
10.	10	23	0	80	34	52	6	4	4	14

TRIAL FOUR SCORES - 1975-76

GROUP X	POST-TESTS							LATER						
	Berger B			Piers-Harris				Berger B			Piers-Harris			
	S-D	S/A	A/0	I	II	III	Total	S-D	S/A	A/0	I	II	III	Total
1.	157	61	51	26	25	20	71	157	56	47	26	23	18	67
2.	113	52	62	26	15	17	58	113	61	58	26	15	16	57
3.	108	61	66	24	22	23	69	85	61	65	23	24	18	65
4.	115	64	56	23	19	15	57	136	59	55	24	19	13	56
5.	104	51	47	20	21	14	55	97	50	50	15	17	12	44
6.	89	43	44	19	18	16	53	92	47	45	19	17	16	52
7.	98	66	57	27	18	23	68	105	64	55	25	15	21	61
8.	120	57	52	16	20	14	50	98	46	47	15	17	13	45
9.	111	56	45	12	18	10	40	109	55	46	10	18	10	38
10.	85	43	53	6	14	10	30	85	43	53	6	14	10	30

TRIAL FOUR SCORES - 1975-76

GROUP Y	E.P.I.			PRE-TESTS						
					Berger A		Piers-Harris Self-Concept			
	E	M	L	S-D	S/A	A/0	I	II	III	Total
1.	15	18	2	122	44	50	11	15	16	42
2.	20	12	2	106	53	56	20	19	13	52
3.	14	7	5	102	42	60	29	16	15	60
4.	15	13	1	121	54	53	25	17	15	57
5.	18	20	0	113	48	51	15	17	12	44
6.	20	21	0	129	44	55	15	16	16	47
7.	18	20	1	105	46	57	22	15	9	46
8.	18	11	1	109	45	45	16	13	13	42
9.	22	16	2	104	47	52	20	19	19	58
10.	16	16	2	116	45	42	16	10	18	44

TRIAL FOUR SCORES - 1975-76

GROUP Y	POST-TESTS							LATER						
	Berger B			Piers-Harris				Berger B			Piers-Harris			
	S-D	S/A	A/O	I	II	III	Total	S-D	S/A	A/O	I	II	III	Total
1.	124	53	51	22	17	17	56	124	53	51	22	15	17	54
2.	116	66	61	24	23	15	62	110	63	60	26	20	16	62
3.	107	68	78	29	22	20	71	117	57	65	28	22	21	71
4.	128	58	57	24	22	13	59	128	57	54	24	22	13	59
5.	118	58	56	18	21	14	53	118	55	55	16	16	15	47
6.	136	51	65	20	22	18	60	134	50	58	21	20	18	59
7.	119	58	62	25	23	16	64	119	46	60	25	23	16	64
8.	114	58	49	21	19	17	57	112	45	46	18	18	17	53
9.	119	55	57	26	23	18	67	119	48	55	26	20	18	64
10.	121	56	52	17	17	17	51	119	55	47	22	14	16	52

TRIAL FOUR SCORES - 1975-76

GROUP C	E.P.I.			PRE-TESTS						
				Berger A			Piers-Harris Self-Concept			
	E	M	L	S-D	S/A	A/O	1	II	III	Total
1.	17	5	3	119	59	71	27	17	16	60
2.	19	12	2	120	61	57	23	18	13	54
3.	16	22	1	101	45	50	10	12	8	30
4.	14	16	0	117	56	52	21	15	11	47
5.	17	4	2	130	48	46	12	8	15	35
6.	22	14	0	118	69	63	25	24	17	66
7.	16	21	4	101	39	44	11	5	11	27
8.	22	3	1	111	60	65	19	19	14	52
9.	16	13	0	123	55	63	15	13	17	45
10.	16	16	3	101	42	46	18	23	16	57

TRIAL FOUR SCORES - 1975-76

GROUP C	POST-TESTS							LATER						
	Berger B			Piers-Harris				Berger B			Piers-Harris			
	S-D	S/A	A/0	I	II	III	Total	S-D	S/A	A/0	I	II	III	Total
1.	136	59	60	30	21	22	73	123	40	41	25	19	19	63
2.	118	45	47	20	18	14	52	118	45	47	20	18	14	52
3.	118	52	45	19	21	17	57	118	52	45	19	21	17	57
4.	124	64	59	25	18	12	55	113	62	63	24	19	17	60
5.	121	36	43	11	13	13	37	115	41	48	10	10	11	31
6.	115	70	61	25	19	18	62	115	70	61	25	19	18	62
7.	105	43	55	11	13	13	37	99	57	50	16	13	17	46
8.	117	64	62	19	22	15	56	112	63	65	20	22	15	57
9.	106	63	49	20	21	20	61	108	53	54	22	16	17	55
10.	110	45	47	19	21	14	54	120	50	51	22	24	19	65

TRIAL FIVE SCORES - 1976

GROUP X	E.P.I.			PRE-TESTS						
				Berger A			Piers-Harris Self-Concept			
	E	M	L	S-D	S/A	A/O	I	II	III	Total
1.	20	20	0	126	48	34	14	21	13	48
2.	16	13	3	91	45	48	16	7	13	36
3.	20	16	1	93	48	48	11	10	12	33
4.	16	13	2	115	41	45	18	13	17	48
5.	15	15	5	130	50	54	21	18	20	59
6.	14	22	2	105	43	47	24	13	11	48
7.	21	21	1	87	53	48	17	17	19	53
8.	18	13	1	96	48	39	10	9	3	22
9.	24	16	1	111	44	43	17	16	15	48
10.	20	13	0	96	41	44	13	10	13	36

TRIAL FIVE SCORES - 1976

GROUP X	POST-TESTS							LATER						
	Berger B			Piers-Harris				Berger B			Piers-Harris			
	S-D	S/A	A/O	I	II	III	Total	S-D	S/A	A/O	I	II	III	Total
1.	140	50	50	21	22	20	63	146	55	49	15	21	17	53
2.	99	47	53	20	14	16	50	102	48	52	17	12	14	43
3.	95	48	50	15	19	15	49	95	48	50	15	19	15	49
4.	117	49	49	23	16	20	59	129	50	53	23	16	21	60
5.	138	55	57	24	20	23	67	138	50	57	23	20	21	64
6.	114	49	52	24	21	16	61	113	45	50	24	15	15	54
7.	94	61	53	17	21	19	57	94	57	53	17	20	19	56
8.	105	51	48	17	14	6	37	100	51	48	15	12	5	33
9.	119	77	74	21	19	20	60	127	61	68	18	19	20	57
10.	103	44	50	18	14	17	49	103	44	50	15	13	17	45

TRIAL FIVE SCORES - 1976

GROUP Y	E.P.I.			PRE-TESTS						
				Berger A			Piers-Harris Self-Concept			
	E	M	L	S-D	S/A	A/O	I	II	III	Total
1.	19	8	0	105	70	69	26	24	20	70
2.	16	19	1	103	46	41	21	15	16	52
3.	21	10	3	114	54	52	27	14	17	58
4.	22	6	3	106	50	48	26	18	19	63
5.	21	16	2	105	32	43	14	13	10	37
6.	12	10	3	93	42	49	13	10	9	32
7.	19	12	0	100	47	45	23	15	15	53
8.	13	12	5	78	43	43	17	12	14	43
9.	10	23	4	92	40	52	7	4	6	17
10.	14	14	0	119	39	40	17	17	17	51

TRIAL FIVE SCORES - 1976

GROUP Y	POST-TESTS							LATER						
	Berger B			Piers-Harris				Berger B			Piers-Harris			
	S-D	S/A	A/0	I	II	III	Total	S-D	S/A	A/0	I	II	III	Total
1.	129	77	78	28	25	23	76	134	73	70	27	24	23	74
2.	133	52	45	28	18	22	68	133	48	48	24	21	22	67
3.	119	59	57	28	20	19	67	119	59	57	28	17	19	64
4.	115	55	54	28	20	21	69	115	54	54	28	20	21	69
5.	110	55	49	22	17	12	51	111	50	44	23	14	11	48
6.	94	45	53	17	14	11	42	94	50	52	17	13	12	42
7.	104	59	47	28	19	22	69	104	50	47	28	19	22	69
8.	98	46	53	21	18	16	55	98	46	53	19	18	16	53
9.	97	46	58	16	8	9	33	91	45	76	16	7	9	32
10.	129	55	54	23	22	20	65	126	44	50	21	20	18	59

TRIAL FIVE SCORES - 1976

GROUP C	E.P.I.			PRE-TESTS						
				Berger A			Piers-Harris Self-Concept			
	E	M	L	S-D	S/A	A/O	I	II	III	Total
1.	16	4	3	102	58	53	27	10	16	53
2.	15	21	4	143	44	53	8	1	2	11
3.	18	9	3	116	60	53	23	18	20	61
4.	16	14	1	96	48	55	12	13	15	40
5.	14	5	3	106	52	50	23	13	13	49
6.	16	2	4	82	44	42	24	16	19	59
7.	21	17	1	118	53	44	22	18	23	63
8.	20	12	0	112	59	53	17	15	15	47
9.	9	19	1	121	54	51	17	14	10	41
10.	18	16	1	96	44	46	24	18	18	60

TRIAL FIVE SCORES - 1976

GROUP C	POST-TESTS							LATER						
	Berger B			Piers-Harris				Berger B			Piers-Harris			
	S-D	S/A	A/0	I	II	III	Total	S-D	S/A	A/0	I	II	III	Total
1.	103	48	46	24	12	16	52	100	39	47	25	10	17	52
2.	91	45	42	8	1	2	11	82	45	50	11	0	4	15
3.	122	59	53	20	17	10	47	121	59	46	29	25	21	75
4.	96	47	43	18	10	11	39	96	48	44	16	10	13	39
5.	106	46	44	22	12	14	48	103	51	41	23	15	12	50
6.	130	53	55	23	20	21	65	131	66	59	27	20	20	67
7.	114	57	52	25	21	23	69	113	60	52	23	23	23	69
8.	106	62	51	18	15	15	48	104	52	49	16	15	17	48
9.	116	51	47	17	15	11	43	121	48	56	17	11	13	43
10.	102	46	44	22	19	20	61	102	46	44	22	19	20	61

TRIAL IV - GROUP ANALYSIS SCORES - 1976

GROUP	WEEK 3				WEEK 6				LATER - 1 MONTH			
X	Self	Other	Group Growth	Total	Self	Other	Group Growth	Total	Self	Other	Group Growth	Total
1.	33	33	29	95	35	35	29	99	34	34	27	95
2.	18	19	19	56	27	29	22	78	28	31	24	83
3.	21	18	23	62	24	26	28	78	27	15	23	65
4.	16	18	14	48	22	27	21	70	29	26	32	87
5.	8	15	20	43	22	27	25	74	22	27	23	72
6.	20	24	16	60	24	30	25	79	20	24	28	72
7.	21	19	23	63	28	27	29	84	24	27	26	77
8.	9	12	11	32	12	15	16	43	16	15	20	51
9.	5	8	19	32	15	17	27	59	27	14	25	66
10.	10	23	26	59	13	25	28	66	16	16	26	58

TRIAL IV - GROUP ANALYSIS SCORES - 1976

GROUP Y	WEEK 3				WEEK 6				LATER - 1 MONTH			
	Self	Other	Group Growth	Total	Self	Other	Group Growth	Total	Self	Other	Group Growth	Total
1.	19	20	16	55	26	30	27	83	24	26	29	79
2.	24	25	27	76	27	31	34	92	31	27	30	88
3.	22	18	13	59	35	34	28	97	24	28	29	81
4.	17	24	18	59	25	28	27	80	26	27	27	80
5.	22	23	22	67	30	27	30	87	31	28	30	89
6.	15	16	17	48	20	23	25	68	22	26	31	89
7.	28	24	14	66	36	32	27	95	30	28	26	84
8.	16	16	16	48	24	24	24	72	18	26	29	73
9.	24	21	24	69	29	28	30	87	24	26	31	81
10.	19	14	13	46	19	14	13	46	23	27	28	78

TRIAL V - GROUP ANALYSIS SCORES - 1976

GROUP	WEEK 3				WEEK 6				LATER - 1 MONTH			
X	Self	Other	Group Growth	Total	Self	Other	Group Growth	Total	Self	Other	Group Growth	Total
1.	25	23	24	72	25	23	28	76	28	32	28	84
2.	11	24	19	54	19	31	20	70	24	21	24	69
3.	20	11	20	51	23	11	20	54	23	11	20	54
4.	11	20	19	50	21	31	28	80	21	31	28	80
5.	15	22	26	63	18	26	32	76	24	27	23	74
6.	24	24	16	64	25	25	19	69	26	26	20	72
7.	14	4	11	29	19	13	14	46	16	20	20	56
8.	27	23	25	75	29	28	25	82	33	32	25	90
9.	9	13	23	45	24	28	32	74	17	20	22	59
10.	23	25	21	69	24	26	22	72	26	28	24	78

TRIAL V - GROUP ANALYSIS SCORES - 1976

GROUP	WEEK 3				WEEK 6				LATER - 1 MONTH			
Y	Self	Other	Group Growth	Total	Self	Other	Group Growth	Total	Self	Other	Group Growth	Total
1.	20	18	16	54	26	25	25	76	31	29	31	91
2.	24	30	22	76	33	34	31	98	29	32	32	93
3.	16	23	26	65	24	28	31	83	31	31	30	92
4.	12	18	13	43	27	33	30	90	26	34	34	94
5.	20	22	27	69	25	27	28	80	20	18	22	60
6.	18	18	20	56	22	22	24	68	24	24	26	74
7.	17	18	21	56	26	28	29	83	17	24	24	65
8.	20	17	19	56	22	19	21	62	23	20	22	65
9.	20	24	22	66	31	33	32	96	26	25	26	77
10.	14	13	21	48	17	18	27	62	18	18	20	56